An Inaugural Address

DELIVERED IN

ST. THOMAS'S HOSPITAL,

At the Opening of the Medical Session 1884-85,

BY SIR J. RISDON BENNETT, M.D., LL.D.,

FELLOW OF THE ROYAL SOCIETY.

GENTLEMEN,—It was, I believe, a saying of Dr. Johnson that "to judge rightly of the present we must oppose it to the past." Certainly, to judge rightly either of St. Thomas's Hospital and its School, or of medical science of the present day, it would be needful to look back, I will not say to bygone centuries, but at all events to the beginning of the present century. And to one standing in the position of him who has the honour of addressing you on this occasion there are many temptations to take a retrospective view and indulge in past memories. Nor should I despair of making such a retrospect interesting to many, perhaps to most, of my auditors. The history of such an institution as this cannot be devoid of either interest or instruction, not merely to members of our profession, but to all thoughtful men, to all true lovers of their country and mankind. For what would be the character of such a history? Would it not be the history of a long series of benevolent efforts to succour the destitute, heal the sick, and alleviate the ills of mankind? Would it not be the history of men whose lives were devoted to doing good to their fellow-creatures—of men whose efforts had been spent in investigating the secrets of nature and making every advance in science available for the benefit of humanity? Would it not be the history of one of the grandest and most venerable of those institutions which are the direct outcome of our common Christianity and the glory of our land?

But I do not propose to offer you any attempt at such a historical sketch, whether for the purpose of congratulating you on the present position and prospects of your hospital and school, or at the risk of posing as a *laudator temporis acti*. I wish rather to be allowed to ask you, as I asked myself after my former pupil, your distinguished and respected Teacher and Dean, had requested me to give the address on the opening of the present session, what is it that those who are entering on the medical profession are about to undertake? What is comprised in the preparation needed for rightly fulfilling the duties that will devolve upon them? These, surely, are questions that every one entering our profession should put to himself. But how few do so or give to them due consideration. It is only when we have entered on the duties of our calling, and by experience are made aware of the magnitude, nobility, and responsibility of the office we have undertaken that in our thoughtful moments we become to any adequate degree sensible of the requirements which our profession demands. The subject is far too extended and serious to be adequately treated in a brief address. But some very general considerations on a few points admit of being submitted for future thought; and if these should help you in any measure more adequately to realise what it is that you who are entering on your profession have undertaken, I shall be satisfied.

The poet tells us that "the proper study of mankind is man." But man is in a special sense our study; man in his entirety, physical, intellectual, and moral; man not only as the highest type of the animal kingdom, a constituent part of the created universe, and therefore subject to its laws; but man also as an intellectual and moral agent, subject to other and higher laws of the Great Lawgiver, of Him whose will is the one and only source of all law, whether physical or moral. Like all other living beings, we are subject to those laws and conditions on which life depends, and as intelligent and moral beings, members of a society of fellow-beings, subject to laws whose maintenance is essential to social life, not to mention those higher laws by which we are linked to a higher and more enduring life. All of us, therefore, must become more or less practically acquainted with the conditions under which we live, whether as individuals or members of society, and must learn, more or less accurately, the consequences of infringing the various laws to which we are subjected. The degree in which such knowledge is essential will differ in different circumstances and callings in life, but absolute ignorance is incompatible with either individual or social life. We, whose office it is especially to study all that relates to the life and health of our fellow-men, have to study man not only as an organised being in all his relations to the external world, but also as endowed with reason and a mental constitution with which his physical nature is combined, by which his material organisation is constantly influenced, and by which he is capable of influencing and is influenced by his fellow-men.

It requires but a very slight acquaintance with the practice of our art to learn how greatly the equilibrium of health depends on the due regulation of psychical as well as physical causes, and how much the influence and success of the medical adviser depends on the exercise of those subtle powers which are not be weighed by grains and ounces. In common with all men, we are bound to be just, manly, gentle, and loving towards all men with whom we have to do; but as members of a high and noble calling, to whom not only the lives and health, but to a large extent also the private and social interests, of our fellows are entrusted, we are under moral obligations of special and solemn stringency. We must learn not only how to regulate our own mental and moral powers so as to exercise our art with the fullest benefit to our patients, but must make it an important part of our study to watch, analyse, and estimate aright the various and ever-varying mental manifestations of our patients. It would be a great mistake to suppose that mental and moral philosophy, the study of the intellectual powers, were required for those only who intend to devote themselves to psychiatrics. Nor is it merely as contributing in no small measure to our therapeutic power that such studies are important. In the more strictly scientific departments of the investigation of disease—etiology, diagnosis, and prognosis—they are of equal moment. There is good reason for believing that in our present state of civilisation many more of our most important diseases than we have hitherto imagined have not merely a nervous, but a strictly mental origin. Happily, through the labours of such men as Bell and Marshall Hall among others, and by means of experimental physiology, our knowledge of the nervous system has been greatly advanced. The influence of mind over body is indeed no new discovery, though of late much more has been affirmed than can be proved of the influence of the material on the immaterial. Where the initiatory steps in the production of disease take place, and what is their precise nature, are indeed questions which physiologists and pathologists alike confess to be involved in mystery. But that in many instances their first manifestation is in the nervous system there is good reason for thinking, and that mental states and impressions do not only induce functional disturbance even to the extent of sudden arrest of function and consequent death we have abundant proof. The action of the heart, respiration, and secretion are all greatly influenced by mental states. Moral emotions that may cause the death of the mother by sudden arrest of the heart's action may also destroy the life of the infant at her breast by poisoning the nourishment that she supplies. The effects of remedies are largely determined by mental states. They become potent, modified, or inert, according to the mental state of the recipient, and this constitutes no small difficulty in determining their true action.

It is therefore not merely as a part of that general culture and preliminary education required of all who claim to be well educated that it behoves us to give mental philosophy or study of the intellectual powers a place in our curriculum. Nor is it merely as members of society and fellow-workers that we are bound to be guided by sound views of moral philosophy or ethics. For the direct purposes of our profession we need to give due regard to the reciprocal influences exerted between mind and body, to the moral powers with which we are endowed, and the modes in which they can be brought to bear on the welfare of our patients. The will, the imagination, emotions, affections, and desires, hope, fear, moral habits and conscience, all exercise an influence on the aspect, course, and final issue of disease. They require each in their turn due consideration from him who would rightly fulfil all that duty demands; or ensure his own success.

How often do we not see an ignorant empiric succeed in cases that have baffled the efforts of legitimate scientific

physicians, whilst we perhaps merely pity the credulity of the patient or sneer at the ignorant pretender to science? His so-called remedies have probably been absolutely inert, but he has called into action powers to which we have attached too little importance, or have altogether neglected—the stimulus of hope, the sedative of confidence, or the mere diversion of the attention from objects which, by their absorbing and depressing influence on the mind, have enfeebled and exhausted every vital power.

But if on the part of our patients and in the ordinary intercourse of life it is important to avoid the two extremes of credulity and scepticism, it is doubly so for us who are engaged in investigating the complicated phenomena of life and all that concerns its maintenance on the one hand, and on the other all that relates to the origin, nature, and prevention of disease. How vast is the field of our observation. How varied, intricate, and often mysterious are the subjects of our investigation. How numerous the fallacies and errors to which we are exposed. How difficult to elicit even the most fundamental truths that are to be the basis both of our science and our art. How important is it that we should be provided with all that constitutes a well-trained and regulated mind, in order to secure and make available for our great purpose in life truth and truth only.

Both our science and art are largely based on the observation and collection of facts. Now, there is a great difference in the observing powers possessed by different individuals; but we all require to carefully cultivate these powers, and by habits of close and continual practice render them both quick and accurate. Having ascertained, as carefully as may be, the certainty of our facts, the utmost care and honesty of purpose are required in tracing their mutual relations and drawing conclusions from them. All prejudice and preconceived notions must be excluded in determining whether any two facts stand in the relation of cause and effect, and in deducing general principles from any number of facts. Habits of close reasoning and the exercise of sound judgment are essential to our success. In medicine the difficulties are far greater than in the physical sciences in applying the strict rules of philosophy to the investigation and determination of truth. We have far greater difficulty in determining the uniformity of phenomena arising both from their greater variety and complexity, and also from our imperfect acquaintance with the influence of external agents on the living organism. We must still submit to be taunted with the uncertainty of medicine; but may, I believe, affirm with confidence that this uncertainty is daily decreasing, and may rest assured that it is only by the steady pursuit of knowledge along the strict lines of philosophical investigation that truth and certainty are to be attained. Let me here ask you to listen to what Lord Bacon says of the mental qualifications for the study of truth.

"For myself I found that I was fitted for nothing so well as for the study of truth; as having a mind nimble and versatile enough to catch the resemblance of things (which is the chief point), and, at the same time, steady enough to fix and distinguish their subtler differences; as being gifted by Nature with desire to seek, patience to doubt, fondness to meditate, slowness to assert, readiness to reconsider, carefulness to dispose and set in order, and as being a man that neither affects what is new, nor admires what is old, and that hates every kind of imposture."

Now, gentlemen, do not suppose that by such observations as these I am anxious to lead you into the barren fields of metaphysical speculation, and encourage you to form theoretical views of medical science, and become speculative practitioners. Far from it. I would rather warn you against wasting your time and muddling your brains by so-called systems of philosophy, which minister questions that are insoluble and are fertile only in raising doubts and spinning ingenious fancies and impossible theories. Such things may have a charm for some minds as affording intellectual recreation, and as possessing, indeed, a show of reason, but which for the real purposes of life are little better than verbal and vain janglings.

I wish simply to impress you, on the very threshold of your studies, with the importance of entering on them with that knowledge of your own intellectual powers and those principles of mental philosophy which are essential in all scientific pursuits. I wish you to keep in mind that in the practice of your art you have to do with the intellectual as well as the physical constitution of man, that you have moral relations to your patients of the highest importance both to their and your own welfare. If I might venture to recommend any particular books on these subjects, I would mention those of Abercrombie, particularly his admirable and instructive "Treatise on the Intellectual Powers."

When entering on the investigation of man's physical constitution as the highest type of organic life you will soon be made aware how intimately connected are anatomical or structural studies with those relating to function, both healthy or physiological, and perverted or pathological, and you will soon learn that whilst acquaintance with the principles of almost every department of physics and natural science is required rightly to understand the structure and actions of the human frame, we have at the bedside to do with something that cannot be studied in the dissecting-room and on the post-mortem table. The history of medicine sufficiently demonstrates indeed how little could be ascertained of vital actions or the nature of disease so long as the structure of the body and the physical alterations effected by diseased action were unknown. But with all the progress that has been made in recent times in our knowledge of our bodily organisation, and the flood of light thrown on the nature of those actions by which life is maintained through the advance in physical science, we are encountered at every step in our studies by evidence of the existence of powers and actions which all our physical science has hitherto proved inadequate to explain. Life is still the great mystery. And life, as we know it here, is ever passing into death. The very actions, so far as we know them, by which life is maintained are ever working by sure and inevitable steps to the destruction of life. All we can do is in some measure to modify those actions, and avert those causes that interfere with life, and so to prolong for a short space its continuance, and render it at the same time a more unalloyed source of enjoyment, a means of greater benefit to our fellow-men, and of fulfilling the great end of our existence. Day by day we are learning more and more how inadequate is our most intimate knowledge of structure to explain the real nature of those vital actions by which our frame is built up with materials obtained from without the body, and dead matter converted into living, and how small a portion of that pathological knowledge we so much need is derivable from the examination of morbid structures. But, happily, we have acquired much, and hope to obtain more, knowledge of the exciting causes of many diseases, and can in numerous cases arrest their action. We can understand much of the ways in which perverted nutrition and altered structure interfere with healthy function and endanger life. We can effectually remedy some of these things, and in important degrees diminish the perils arising from others. We can alleviate the pain and inconvenience associated with many diseases, and can save many lives from immediate and inevitable death. By our knowledge of the influence of external agents on living organisms we can diminish their danger to life and health, and make many otherwise impossible occupations compatible with human welfare. We can prolong the duration of human life, and have added to its sum total. We can comfort many an aching heart, solace many a weary mind, and bring joy and gladness into many a home in a way that no other body of men can. The benefits that we can confer, the good that we can do by our science and art are as extensive as humanity, and all ranks and conditions of men in ages yet to come will have cause to bless our Harveys, Hallers, Hunters, and Jenners.

But why do I venture to indulge in this strain of seeming self-laudation? Because I do not wish that you should be discouraged by the extent, variety, difficulties, and mysteries of the studies on which you are entering, but rather that you should congratulate yourselves on having adopted a course of life worthy to engage all the highest powers of man, and capable of conferring the greatest blessing on mankind. A life it is that will indeed not be free from care, anxiety, toil, and self-abnegation, but fraught with pleasures and satisfaction of the purest kind.

The connexion and relative importance of the different departments of your studies and the present aspect and position of our science you will learn from their respective teachers. The facilities and advantages which you possess in the present day for carrying on your study in the various subjects that lie at the foundation of all your professional education are very great; but with all these aids you must be prepared to find some of them at first irksome and devoid of much apparent interest. By industry and resolution you will soon get beyond those first steps that are always more

or less rough and difficult. As you advance your progress will be easier, and if you are at all worthy of your calling each step will be found of increasing interest and delight. On the actual position and prospects of our science in its various divisions I shall not attempt to enter. In some the outlook is more encouraging than in others. In some of the special subdivisions the practical application of our science has been followed by results of the most gratifying and salutary kind, whilst with respect to others sceptical outsiders are prone to exclaim "*Cui bono!*"

On one or two points I venture to offer a few remarks. Histological investigations have for some time been pursued with great ardour and diligence, and with undoubted and important increase of our knowledge both of function and structure, but whether with a corresponding augmentation of our therapeutic powers may be doubted, and whether such studies have not too much diverted our attention from the general laws of disease and the broad principles of practice is a grave question. At all events it is, I think, not a needless caution in the present day to warn you against coming under the description of Goldsmith's "puny pedant, who finds one undiscovered property in a polyp, or describes a hitherto unheeded process in the skeleton of a mole, and whose mind, like his microscope, perceives nature only in detail." I am speaking to those who are supposed to be preparing themselves for the practical duties of their profession rather than to scientific investigators. Again, many of the subjects of scientific inquiry in the present day are of such surpassing interest, and I may say fascination, as well as importance, that they are calculated to occupy the student's mind so as to interfere with other topics, and give a colour to his views both of science and art detrimental to his therapeutic success. Still more do we need to be on our guard against being influenced by the mere fashions and notions of the passing day, and taking up the endless whims and baseless theories that happen to have gained the ear and secured the patronage of the public.

It is certainly remarkable how little of our most trustworthy therapeutics has been the direct deduction from our scientific knowledge. Nay, how many of our most valuable and best-tested remedies have been acquired by accidental observation! How entirely ignorant are we of the mode of action of some of the most reliable! Quinine or bark from the time of its discovery has held its place as one of our most valuable and certain remedies, and we have recourse to it with the utmost confidence in intermittent fevers and neuralgias, knowing nothing of the real nature of its operation. The most philosophical physician, and one of the best of men, whom I have ever known, the late Professor Alison, at whose feet I had the privilege of sitting, and under whom I acted as clinical clerk, gave it as his opinion that we must look mainly for the advance of practical medicine to more accurate knowledge of the exciting causes of disease, and to the discovery of fresh specifics which may exercise the same influence over diseased actions as cinchona in intermittent fevers, citric acid in scurvy, and vaccination in small-pox. Two remedies that have come into use since his day, iodide and bromide of potash, approach nearest to the claim of being considered as specifics, and have proved of inestimable value; but their employment has not resulted from scientific induction either from physiology or pathology. It is also deserving of remark that in proportion as any medicine is found to be adapted to any particular morbid state, it is well borne by the economy, to the extent even of entirely masking or overcoming its ordinary physiological action. But experimental physiology and pathology have thrown much light on the action of many medicines, and we have thus gained no small amount of reliable information on the means at our disposal for modifying vital actions and controlling disease. The danger to life and the destructive course of disease are in many instances mainly referable to excess or defect of particular functional activities, which admit of being controlled by remedies proved to be capable of exercising the required influence. The incalculable blessings conferred by anæsthetics have been obtained by experimental investigations into their chemical constitution and influence on the nervous system. These and other instances of important augmentation of our therapeutic resources are a sufficient answer to the objections now so frequently and mischievously raised by mistaken opponents of experiments on the lower animals. Again, in the case of parasitic diseases, our knowledge of their true causes and nature has led to the discovery of appropriate and efficient remedies. And there can be no doubt that in other and more complex forms of disease, in proportion as we know their essential nature, our therapeutic powers will be increased.

Although there cannot, I think, be any doubt that by a judicious combination of medicines we often obtain advantages that could not be gained by single drugs, polypharmacy has been a great evil; but its days are well nigh gone, and the greater simplicity of our present practice is no doubt conducive to more accurate knowledge of the real therapeutic value of medicines. But whilst admitting the urgent need of still further careful observation and experiment in this field of inquiry, and though far from underrating the power of controlling, and even curing, disease already afforded us by many drugs, I would urge you ever to remember that therapeutics are no more comprised in the due administration of drugs than is pathology in a knowledge of morbid structures. It is well that young practitioners should see and appreciate the truth and depth of meaning in the dictum of Celsus, "*Optima medicina est non uti medicinâ*," a maxim which a certain class of practitioners have very dexterously turned to their own no small advantage.

Therapeia with the ancients comprised all that related to the care of the sick with a view to their comfort and relief; and in the present day hygienic rules, diet, and regimen are comprised under the head of therapeutics. It is here that we have met with most success and have won our greatest triumphs. It is here that all our labours in the investigation of structure and vital action have borne fruit; it is here that we have been able to profit by all the advances in physical sciences. Fuller knowledge of the exciting causes of disease has enabled us to make important steps towards their prevention; a more intimate acquaintance with the laws of morbid action and the natural history of disease has enabled us to foresee results and promote or obviate their occurrence. A closer acquaintance with nature's powers in maintaining health and repairing injuries has helped us materially in promoting her efforts and warding off all those influences that tend to interfere with or frustrate them. Surgery perhaps affords us the most signal and indubitable evidence of this; but some of the most complicated, and still in some respects inscrutable, forms of disease that fall under the care of the physician—specific fevers—might also be cited. More attention to the influence exerted on the aspect and course of disease by different circumstances and conditions of life, by differences of season and general epidemic character, has shown us the fallacy of supposing that the same disease is always to be treated in the same way, and thus leading us to prescribe for a name rather than for the particular case under view. If we take so common a disease as pneumonia, for example, of the nature, course, and general management of which we know more than of many other diseases, how different is its mode of access in different cases, the degree and kind of danger attending it; how different its progress; how different the constitutional condition of the patient, his hygienic and moral circumstances. Manifestly the plan of treatment and the action of remedies must correspondingly vary. Theoretical or scientific views of pathology and therapeutics must here give place to the sagacity, experience, and judgment of the physician, even at the risk of his reputation, by running counter to popular views and received rules. It is evident that when encountering new forms of disease, or which are new to us, we must be guided by analogy rather than by definite rules.

It may perhaps be questioned how far the varied aspects presented by disease at different periods will account for or justify the abandonment of remedies and plans of treatment that have been found successful in other times; or how far we are influenced consciously or unconsciously by theoretical views into which we have been led by recently discovered scientific facts. In practice we must still to a large extent be guided by those broad general principles that have been best established by observation, and stood the test of long experience. In our art, *viverunt fortes ante nos*; and we have but to look to the records of the past to be convinced how large a part of our most trustworthy practical knowledge has been transmitted to us by men who have gained the admiration and gratitude of their posterity by their sagacity and powers of patient accurate observation rather than by the theoretical views and systems associated with their names. Systems of medicine have passed into limbo, and we are happily free, in the present day, from their shackles; but we cannot ignore or neglect knowledge accumulated in the past, because we cannot make it harmonise with

our more advanced physiology or the marvellous discoveries in the field of microbiology.

During your studies here you will have but little time for reading beyond what is comprised in text-books, and that little had better be devoted to general literature as a source of mental recreation from professional occupations. But the leisure hours of future life will be profitably employed in learning what has been thought and done by the great men of the past. In the history of medicine you will find much to interest as well as to instruct you. Stores of wisdom are to be found in the writings of bygone observers that may be made practically available at the present time, and assistance often obtained on questions of the day by learning the errors and mistakes, as well as the discoveries, of the past.

In practice each individual case of disease to which we are called must be made a special study. It is not enough to ascertain that we have to do with gout, pneumonia, or typhoid fever, whichever it may be; each example of disease and each patient must be made a special study. We have to take into consideration all that relates to the climate, season, hygiene, and social condition of the patient, his hereditary and constitutional characteristics, his idiosyncrasies and past history, so far as we can learn them. And in the management of each case there is scarcely any circumstance, however trivial apparently, that may not exert an influence on our success, any and every source of irritation, whether bodily or mental, the position of the patient or his bed, the aspect as well as the nature of his food, his prejudice in respect of a particular medicine, his liking or aversion for a particular attendant and all that relates to the nursing and economy of the sick room.

It is not enough to lay down rules of diet. You require to know that the food is properly prepared as well as its special adaptation to the patient's case; and to these ends you must know the principles of the science as well as the art of cookery. For cookery is a veritable science as well as an art. Among the poorer classes there is not only grievous waste from ignorance or neglect of the right methods of obtaining the full amount of nutriment from each variety of food, but many unfounded and hurtful prejudices against the use and best modes of preparing such food as is needed in sickness. You will render no mean service to your poorer patients by instructing them on such points, and will greatly enhance your therapeutic powers by a knowledge of the chemistry of food and the best means of preparing it for the purposes of nutrition. Your personal influence in the sick room will be more or less in proportion as you learn to exercise in each case the precise moral control that it requires; and whilst to secure the confidence, good opinion, and gratitude of your patients are in all cases legitimate objects, their real welfare and the fulfilment of your duty must ever override all considerations of your own social success. Assumed and affected manners are to be deprecated, whilst a kind and sympathetic manner should be sedulously cultivated. Gentleness should be combined with firmness, cheerfulness with sobriety, caution with confidence, and a general deportment consistent with the gravity of your office, and the particular requirements of the sick should be your habitual study.

In such a profession as ours every well-conducted and fairly qualified man may look with confidence to a certain amount of social success and opportunity of benefiting his fellows, may secure the esteem of the worthy and the blessing of such as were ready to perish. It is not indeed given to all to make discoveries in science, or effect important advances in our art; but each may do something, and it is imperative on all to make it an object, and consider it a duty, so to live that those who come after us may be the better for our labours. Some by the particular circumstances in which they are placed may have opportunity for special observation and investigation of particular forms of disease which should not be lost. All by careful, trustworthy observation of nature and truthful records of work may contribute somewhat to the common stock of knowledge; but such records must be made, not with a view to a fleeting reputation or the gratification of personal vanity or ambition, but with the object of eliciting truth that shall prove to be for the good of man's estate. Whatever the genius of some or their special advantages may enable them to effect, it is by that close observation of nature, which all may and are bound to cultivate, that most of us can hope to attain what should be the desire of everyone.

"Where natural logick prevails not, artificial too often faileth," says that quaint old philosopher, moralist, and physician, Sir T. Browne; "where nature fills the sails the vessel goes smoothly on, and where judgment is the pilot the rate of insurance need not be high; where industry builds upon nature we may expect pyramids; where that foundation is wanting the structure must be low. They do most by books who could do much without them, and he that chiefly owes himself unto himself is the substantial man."

Introductory Lecture

DELIVERED AT

UNIVERSITY COLLEGE, LONDON,

On October 1st, 1884,

BY W. R. GOWERS, M.D., F.R.C.P.

GENTLEMEN,—My first and chief duty to-day is a simple one. It is to bid a hearty welcome, in the name of my colleagues and myself, to those of you who are here to commence or to resume your studies. Of your choice of a profession I may have something to say hereafter. Of your choice of a place of study I need say little. For more than half a century University College has shown other schools how medicine should be taught. Almost every important step in medical education has first been taken by her. Thanks to her example, she now has many rivals, but remains surpassed by none and equalled by few, whether the test of comparison be that of method or quality of result.

With this word of welcome, my chief duty being done, I would gladly end. But an unhappy custom lays its heavy hand upon me, and compels me to introduce you to your work by the first of the many lectures to which you will have to listen. In doing so, I do not propose to pass beyond the immediate occasion that brings us together. I have too much sympathy with the interests that are foremost in your minds to-day to be able to inflict upon you any scientific dissertation. So I shall limit what I have to say to the work that lies before you and the profession you have chosen, even though I risk the accusation, so freely levelled at introductory lecturers, of talking platitudes. I confess the charge lies lightly on my conscience. For, gentlemen, what is a "platitude"? A platitude, dictionaries tell us, is "something flat." Well, this world of ours seems a flat place to people who are up in a balloon; but to those who have to live and work upon it—to climb its shelving slopes—to thread its mazy labyrinths, and rest beneath their shade, the world has characteristics which the epithet of flatness fails to epitomise.

And so I will begin with the most common-place of questions, and ask why you are here, and will anticipate the most common-place of answers, that you are here "to study Medicine." Would, for your sakes, that the act were as simple as the words. Even in outline the process is somewhat formidable. I have said that this is the first of many lectures to which you will have to listen. I am almost afraid to tell you how many they are, lest the prospect should be too much for your resolution. It is certainly, however, within the mark to compute the number of lectures and class meetings, that you will have to attend, at not less than two thousand. It is not our fault, gentlemen. It is ordained and prescribed by the powers that be that you shall learn all things by oral instruction. Many subjects could not be taught otherwise. As regards others, I for one think that more laxity might be shown, and that the method by which knowledge is acquired might be left, in larger degree, to the choice of the student.

Nor is the prospect less formidable if the nature of your work is looked at. Those of you who aim at the higher qualifications will have to learn something of about half the sciences into which human knowledge has been divided, and of many you have to acquire not an elementary, but a practical knowledge. Besides the sciences that you are expected to study, many others have applications to the subject of disease, its prevention, and its treatment, although those applications are not so direct or so extensive as to make their study compulsory. Indeed, the sciences that

have no such relation are few. Almost every branch of knowledge, whether it deals with earth, or air, or water, with the physical properties of matter, or with the phenomena of organic life, with the processes of thought, or the social economy of communities, touches at some points the varied problems that present themselves to the practitioner of medicine. Nor can it be otherwise. For what is the work to which you address yourselves to-day? What is this Medicine to which you propose to give such strength as you possess and such life as may be before you? Let us try for a moment to gain a wider view of it, and see how vast is its significance, how extensive are its relations. Your life work is to be the prevention, cure, or alleviation of the diseases of man. Whatever else man is, he is at least this—the highest and most complex phenomenon yet discovered, or likely to be discovered, in the material universe; that in which the interactions of force and matter attain the greatest elaboration known to us or, indeed, conceivable by us. The highest form of matter, the most delicate adjustment of force, are in a nerve-cell of the human brain. Of the slow, never-resting tide of creative development, sweeping on, through ages far behind us, ebbing and flowing, and yet with sure advance—moulding into new forms and higher phases the mysterious elements on and in which it works,—it is with the ultimate result, the highest product, that your work lies. Physically man is part of the material world, inseparable. The phenomena of life are continuous with those outside the living organism, depending for their existence on that continuity, acted on by, and reacting upon, all the strange waves of varied forces, which, in their blending interaction, weave what we call the outside world. But elevation entails instability. The exquisite capacities of organic bodies are obtained by a complex adjustment of forces, held in restraint, ever striving to gain some lower and more stable state, kept in check by delicate counterpoise, in equilibrium that is destroyed by the slightest change, is indeed in constant process of destruction and renewal. By altered constitution or action the human body responds to every external variation, to every change in temperature, mechanical force, chemical constitution of its surroundings, and doubtless also to every alteration in electrical and magnetic states. No cloud can form, no rain can fall, without its influence. Each motion of our rolling world, each wave of light that reaches us from the far-off sun, each wind that bears to us the warmth of tropic seas or cold of mountain snows, determines some change in us. An alteration in the soil on which we live may modify altogether the processes of life. Hence we may see how wide must be laid the foundation of at least a general acquaintance with the sciences that deal with the material world, before an intelligent superstructure of special knowledge can be reared. With increased exactness in the study of the human frame, that necessary foundation has to be made wider and deeper. We are only beginning to see the application to physiology and pathology of the physical sciences. The structure of the body abounds with mechanisms and its action with processes, both in health and in disease, that can only be comprehended by a knowledge of the sciences that deal with the precise relations of constant forces, with the action of energy in solids and liquids, with the laws of light and of sound, and with the changing forms of force. Mathematics have a future application to human physiology and pathology of which only one province, the functions of the eye, affords at present an adequate illustration. You cannot properly understand the higher forms of organic life without some knowledge of the lower, in which the problems are simpler, and can be more readily comprehended, even if they cannot be solved. Moreover, the very lowest forms of life have been lately found to have the closest connexion with our work. Nature is always surprising us by the union of extremes. The labours of pathologists have added to the realm of biology a new province where it was least expected, and we may say least welcome. When I was a student the Professor of Zoology, whose genial enthusiasm will never be forgotten as long as his pupils live, commenced his lectures on the animal kingdom with an account of the corpuscles of the blood, and I presume our esteemed Professor of Botany will soon have to save his subject from its threatened exclusion from the curriculum by devoting half his course to bacteria, unless—which perhaps is more probable—a new chair has to be founded of, let us say, bacterio-phyto-zoology. When you have gained a knowledge of the sciences on which medicine rests, unfortunately, indeed, at the same time, you have to enter on the more special studies to which most of your time will have to be devoted; the study of those combinations which are so far distinct as to constitute, currently at least, separate sciences, and which we call by names that properly have wider meanings—"anatomy," or the art of cutting up; "physiology," or the science of the nature of things; "pathology," or the doctrine of deep feeling; "medicine," or the art of healing; "surgery," or handiwork. Around these chief divisions of the knowledge you have to gain are others of subordinate position, although scarcely of subordinate importance. Some of this preliminary knowledge you have doubtless already acquired, but that which remains is sufficiently vast in extent, intricate in arrangement, and complex in nature, to make the 2000 lectures only too few, and the four years you devote to the work only too inadequate. The task before you can only be accomplished by strenuous labour, pursued with even tenour, allowing no alluring pleasure to divert you, or idleness to hinder.

The mode in which the various studies should be pursued, will be sufficiently explained to you by those whose task it is to teach them. I would only impress on you one general principle, that should be ever kept in conscious view. It is a trite observation, often repeated, familiar enough in abstract but never enough familiar in daily effort, that the object of study is twofold. You are here for education as well as for instruction. You are here to acquire the knowledge of fact and rule and theory that you are to apply hereafter in the daily work of your lives, but you are here also to obtain the mental training needful for that application, needful to enable you to use your knowledge under conditions that are ever new and ever changing, to distinguish fact from fancy when they present themselves in unfamiliar aspect and often in borrowed garb—to trace new facts, new laws, among the manifold combinations of phenomena that will be around you in every day's work. Happily in each department of science the mental training needed to pursue it may be gained in the acquisition of the facts already known. No separate education is needed. If you study well, both wisely and thoroughly, the subjects that form your course, you will be, at the end of the time, qualified not only in the diplomatous, but in the fullest, sense of the word to enter on independent work. But the extent to which you obtain this training rests largely on yourselves. It is at once an important, perhaps the most important, part of your work, and it is that in which your teachers can do least for you. They can put before you fact and reason, but they cannot, or can only in small degree, compel you to observe, to realise for yourselves the value of evidence, to distinguish fact from theory, and to be on guard against the fallacies that lurk on all sides. They can test your knowledge; they or others can "coach" you and "grind" you, but the process of the instillation of facts, represented by these somewhat inapt metaphors, may leave you wholly untrained for subsequent work. Your "coach" may carry you through the lofty portals of Lincoln's-inn and Pall-mall, or the lower archway at Blackfriars, and leave you altogether unfitted for independent progress. Your "grinder" may pass you through his mill with such success that you emerge a flabby mass of factitious atoms kept in the semblance of form by the sack of a diploma, but it is only by your own continuous effort that you can gain cohesion and the power of organic growth. And this effort must be made from the commencement of your studies. Each of the subjects that occupy your earlier years has its own method, and yields you a separate training. In each facts are ascertained and theories are verified in a different manner, and this you should endeavour to keep before you in your daily work. This subject has been often dwelt on, and once here with an ability that I cannot hope to rival. I would refer you to, and urge you to study carefully, an introductory lecture that you will find in the library, bearing the revered name of Parkes, and I will content myself with a few instances to show you what I mean. The training given by the study of anatomy is chiefly that of observation—at once the most fundamental, and I might say the most difficult of all the mental processes involved in medical work; difficult, partly because it seems so easy, and a first clear impression is allowed to deter from thorough investigation; partly from the well-known tendency to confuse observation and inference, and to lose sight of the sources of error that the latter introduces; partly because facts have an inconvenient habit of presenting themselves where they are not expected, and when the attention of the observer

is otherwise engaged, often in some manual occupation. This is a fertile source of error and omission. It cannot, from the nature of the case, be altogether avoided, but it may be to a large extent lessened by careful training, such as that which is supplied by the study of anatomy. This, if properly used, is of inestimable value. The facts are simple, in that they are of one class only. They are limited; it is possible to make an observation thorough and complete. But much of the value of anatomy as a training is lost because the student is content to separate too completely, often endeavours to separate, the two parts of his work, the process of dissection and the process of learning. During the processes of tracing and cleaning, largely mechanical, he allows his mind to be occupied with other subjects, and when the task is over, sits down to learn his part as from a picture or a model. But by keeping his attention constantly fixed on his work, by noting over and over again, and in a systematic manner, the relation of the parts he is tracing, he may not only almost know his dissection by the time he has completed it, but he may gain the power of seizing every fact as it presents itself, although his attention is at the time occupied by the work of his hands; a power of inestimable value, especially to the surgeon and pathologist. Microscopic anatomy takes the student to a fresh range of facts of greater complexity, and ascertained by a more complex method of instrumental, instead of simple, observation, and experiment by means of reagents plays a minor but important part in the processes of identification of structures, an introduction to the use of experiment in its simplest form. He should endeavour to analyse the steps by which each conclusion is reached, since by this training in simple methods he will be better able to trace the process, far more complex, by which inferences are drawn, and so detect the dangers of fallacious reasoning, in the more complex sciences that constitute his later studies. So in chemistry, in which experiment attains its highest development, and the training in exact reasoning which it affords to the student is of inestimable value. It is unfortunately unavoidable that most students should study these three subjects simultaneously, but it is a wise modification of the older order that study of inorganic chemistry should precede that of physiology.

So large has become the cargo of knowledge with which the course of medical study has become charged, that the question has been necessarily raised whether the overladen vessel cannot be lightened by throwing overboard at least one subject, and by common consent Botany has been selected as that which may with least loss be spared. The loss, it seems to me, would be greater than is commonly assumed. From the point of view of education, as opposed to mere instruction, the value of botany to the student is very great. No elementary subject in the whole curriculum is capable of supplying in equal degree the training in the methods of his ultimate work. Structural botany supplies an additional and most useful training in observation; the practice of describing plants, so admirably systematised as it is in the teaching here, is an excellent education in note-taking, afforded by no other subject in the earlier course; while the process of the identification of plants, involving as it does exact observation and comparison of characters and the estimation of evidence, is almost the same in method as that of the diagnosis of disease.

If the student has duly profited by these earlier studies, he is prepared to enter with advantage on the study of physiology, in which he is introduced to the chief methods of ascertaining and verifying facts that are employed in the ultimate subjects of medicine, pathology, and therapeutics. Although the methods are, in part, the same, the higher degree to which experiment can be applied renders the conclusions of physiology far more certain than those of medicine and pathology; although far be it from me to suggest that everything in physiology is free from doubt. The value of this study as a mental training was insisted on not long ago, with characteristic ability, by one of whom University College is justly proud—Professor Michael Foster of Cambridge—and his main conclusions must command universal assent. But the student can only utilise physiology properly after the training afforded by the earlier studies I have mentioned, and its proper place is between those and pathology.

When you come to the practical study of the subjects that are to constitute your later work, and especially to clinical medicine, surgery, and therapeutics, you will feel the value of your earlier studies if you have properly used the training they afford. Strive in all your work after exactness, thoroughness, and keenness in observation; endeavour to analyse the process by which each fact is reached, remembering that the processes are always more complex than they seem; look out for every opening by which fallacy can enter; strive by every method you can think of to gain the utmost certainty attainable, in whatever it be, whether the diagnosis of a disease or the action of a drug; or, at least, relentlessly expose, and candidly admit to yourselves, the degree of uncertainty. It would be a help to the student if at the beginning of his career, instead of sometimes at its close, he had to acquire some knowledge of formal logic, but the steps of reasoning can be effectively traced, and the value of conclusions duly estimated, almost as well without the aid of formal logic as with it, provided the student uses every opportunity of acquiring the art, and begins with the simpler instead of the more complex processes. It would also be a great assistance if the methods of reasoning adopted in each science could be explained and illustrated to him in a systematic and formal manner when he commences its study.

I have ventured thus to insist on the importance of deliberate and conscious effort on your part to obtain to the full the mental training that your studies afford, because I can do so here without any qualms of corporate conscience. Although you have, alas, no longer the privilege of listening to one, whom here I need not name, through whose unrivalled teaching his pupils learned the importance of exact reasoning by the most masterly example of method ever presented to students of medicine; still I believe that there is no other medical school in which so much is done to educate as well as to instruct, to train the student as well as to propel him through his examinations. And I have ventured to insist upon this subject, because if we look around us, and read much of the medical literature of the day, it is difficult to avoid the conclusion that there is, to put it mildly, room for improvement. To put it more exactly, there is no department of science in which there is so much imperfect observation, hasty generalisation, and fallacious reasoning as there is in medicine. I was going to say, "there is no department of intellectual work," but as that would include politics, which is supposed to be intellectual work, the statement might be open to question; so I will leave you one comforting comparison. But in medicine, almost every day, fancies are formulated as if they were facts, theories are elaborated on data absurdly inadequate, and almost every conceivable error in reasoning is gravely perpetrated, and what is more, these things are welcomed with acclamation, when in any other department of science they would be put by with a smile. This is no doubt due in part to the large number of workers in medicine. There is of course some admirable work, researches as brilliant, and reasoning as exact, as any department of intellectual work can show. I do not say that the bad is out of proportion to the good, but I am sure that the bad would be less if more could be done to utilise the mental training afforded by the course of study.

There is another and very different province in which self-training is desirable. When you come to the practical study of disease, strive to acquire the habit of entering into the feelings of the sick, and into their modes of thought, to such a degree as to ensure considerate tenderness in dealing with them. Never forget that a "patient" means one who suffers, and that you come in contact with the tenderest parts of human nature. Remember that in those in whom pain, disease, and death are stern and trying realities of the present or the nearer future, the mental tone is altogether changed; and do not judge the sick by the standard of the sound. "Invest suffering with the reverence that is due to its sad mystery. It has its roots deep down beneath the surface of our life, and reaches, in each one, the inner depths of calm or storm, in a region into which you cannot pass except by tender sympathy and thoughtful care."

It is true that to enter fully and deeply into suffering, with the sympathy that is not only intelligent but "with-suffering," is impossible. A doctor's work would then be simply beyond human endurance. To him, as to no other, the darkest side of human nature is ever open; in his ears the deep undertone of sadness rings through every chord and melody of human life, now in the wail of pure distress, now in the discord of passion, now rising into the sweet but still sad music of patient resignation and self-sacrificing

love. Well is it for the world that it is possible to understand without enduring, or the helpers would be few. As it is, our lives are often saddened by the suffering that we cannot but share. No statement more untrue was ever uttered than that familiarity with the sight of suffering destroys the capacity for sympathy in medical men. It is one of the many statements that are made by crotchet-mongers and others in the present day regarding the members of the medical profession, their feelings, actions, and motives, which could not be made in public if the character of the profession as a whole and the value of its work were duly appreciated.

It has always seemed to me that the value of that work to the community is underrated in public estimation, and that its character is inadequately recognised. I do not say that it is so in the individual relations of practitioners, but the frequent depreciation of our efforts, the misconception of motive, deliberate or unconscious, the bitter and unjustifiable attacks permitted upon individuals, even in journals otherwise respectable, could not be made, because they would not be tolerated, if the public knew what our work as a whole is. Of course, in a body of men so large as that of which our profession consists, there are and must be some who disgrace the colours with which they serve. For their exposure we may be grateful; and if humour banters us, we may join in the smile that it excites. But the cases to which I allude, examples of which must occur to the minds of many of you, are very different from these.

Consider one or two aspects of our work. Take the service it renders directly to the community. Attempts might be made to estimate the money worth of the lives that are saved, but the data are too imperfect to show more than how large it is. In Great Britain and Ireland there are about 20,000 medical men in actual practice. Most of these have scores, some have hundreds, of patients under treatment every week. I do not think it is an over-estimation to assume that each practitioner in active work is instrumental in saving one life a week. If you consider the varied cases that come under his care, the acute diseases, accidents, the double perils of childbirth, the dangerous maladies avoided by timely treatment, I think that this assumption is below the truth. But halve this estimate; assume that he saves two lives a month, or twenty-five a year—and many practitioners demonstrably save this number in childbirth only. In the aggregate even this low estimate amounts to half a million of deaths prevented every year. Is not this a service to the community before which most others, and many far more highly honoured, pale? And to this must be added the cases of slighter disease and suffering prevented and relieved, many times exceeding in number the deaths prevented, even when every allowance is made for the cases in which, alas! the resources of our art are still powerless. Take again the progress of sanitary science, which is adding so much to the health and longevity of the nation. To whom is this due? Sanitary work has passed so largely into special hands, that few remember that the movement is all but entirely due to our profession. It is to medical science that all the knowledge of the causes of disease is due, which has shown the way for prevention. It is to the efforts of practitioners of medicine that we owe the stirring of public opinion, by which the progress of sanitation has been rendered possible, and which has produced outside the ranks of our profession noble workers—only too few,—who have aided our efforts and advanced our cause. And to-day, in town and country, over the face of England, in the gloom of crowded cities, and in the fairer cottage homes, where Nature spreads her beauty over man's neglect, it is the members of our profession who labour untiringly in the cause, against the obstructions of ignorance, prejudice, and almost criminal apathy—obstruction too often successful, until the warnings given receive some fearful emphasis, as by such an outbreak as that at Kidderminster, or the awful avalanche of Death that has fallen on the city—of all in Europe the fairest and most foul. And in this labour, which is a part of the ordinary work of medical men, their motive is pure benevolence. The inverse ratio of the prosperity of the doctor and the health of the people has passed into a proverb. If all the efforts that the members of our profession are at this moment making, with all the energy they possess, were to be crowned with success, immediate and complete, one-half of the practitioners of medicine must starve or find some other calling. Search where you will, in the wide scenes of the present or the narrowing vistas of the past, and you will not find another instance of such a body of men making it a main and constant object of their lives to deprive themselves of half their livelihood. But the fact, of course, excites no surprise, because every man who enters the profession, in so doing, puts self and self-interest aside so far as his work is concerned, and places the welfare of others before his own. To approach his work in any other spirit would be monstrous and intolerable, if it were not inconceivable. The vast majority of our fellow-workers subordinate not only their own interests, but their own feelings and their own lives, to the welfare of others in constant and uncompromising self-sacrifice. And this being a matter of course to us is taken by the public as so much a matter of course to them, that it is almost ignored in the public estimate of the profession. Medicine is ranked the lowest of those callings that are by courtesy termed learned, and the highest social dignity that is conferred on her most honoured members is the lowest that could be offered.

It has been objected that many of the lives we save are worthless to the nation, and lessen instead of augmenting the common-wealth. But when every allowance is made for these the residue of useful workers saved, of those whose existence is the nation's strength, is vast enough to startle the most indifferent if it could be assessed at the lowest estimate of its money worth. But the objection carries us to a wider survey of our work, at which I can only glance. If we look, not at the individual or the nation, but to the race in general, what are we to say as to the influence of the art of medicine? The question is but part of a subject of the highest interest, but also of profound obscurity—the part played by disease in the physical progress or degradation of man. Few questions in the whole range of science have an equal interest, perhaps no one is involved in greater difficulty. We can get glimpses of the outlines of the problem, hardly any of its solution. And yet it is a question towards which many lines of discovery converge, and its elucidation would be their grandest crown.

It is sometimes suggested that the influence of our art upon the race is to promote its physical deterioration. We save from death many sufferers from constitutional maladies, or from actual disease many who possess a morbid tendency, and by them that tendency is passed on to their offspring, and thus the area of liability is slowly widened instead of being lessened by the early death of those affected. It has even been urged repeatedly that the tendency of modern civilisation and of the medical art as part of it, by enabling the weaker to endure, is to cause an infraction of the great law of the survival of the fittest. The last assertion is an example of the inability of even brilliant thinkers to grasp a problem beyond their own familiar province. Fitness is here a purely relative and not an absolute term. If the conditions of life are so changed that the weaker may survive, the change in the conditions at once transmutes unfitness that would be fatal to a fitness that secures survival. The great doctrine of the survival of the fittest seems to me less a law that has to be proved than an axiom, as self-evident as that two straight lines cannot enclose a space. And it must be remembered that whatever be the influence of medicine in favouring the hereditary extension of morbid tendencies, it is simply an instrument of the moral force, which, in range and in effectiveness, progresses with the advance of humanity, the force that finds its expression in benevolence and philanthropy. Absent from savage life, these have now become recognisable and increasing factors in the influences that are moulding the future of the race, and they appear likely to gain in force in ever-increasing ratio. But I think it is open to question whether the gloomy forebodings to which I have referred are justified. It is easy to gather facts in support of the opinion; but it is very easy to look only at one side of the question. Our knowledge of the influence of heredity in the causation of disease is constantly increasing, and we are apt to hastily assume that the influence itself is increasing; but of this there is no proof. The strict evidence is equally consistent with the assumption that the influence of heredity is unchanged, or even lessening. For, be it remembered, the facts on one side of the question are obtrusive; on the other they are inconspicuous, however numerous. Even in families with strong hereditary predispositions, it is the common rule for many more to escape than to suffer, and this in every generation. There is a constant tendency for the race to clear itself of disease, just as a polluted river purifies itself while it flows. Were it not for this, man, or at least civilised man, would long ago have disappeared

from the earth. And is it too much to hope that the growth of social wisdom, and the progress of medical science, may succeed in augmenting this influence to a far greater and more effective power than it is at present?

In another province—that of zymotic disease—the promise of the future is still more distinct. One of the elements of their origin seems almost within our grasp, and few can doubt that the investigations that are even now in progress and the discoveries already made, which have added a fresh lustre to medical science, discount them as you will, must soon be followed by practical results of the first importance. But we must not forget that the nature of the specific material in which these diseases apparently consist is but one element in the phenomena. On the other, the strange fact of specific liability, no light has yet been thrown; and yet, in its relations to individual, race, and species, it is at present far more strange, and may ultimately be found even more important, than the other. The familiar facts of the protection afforded by an attack of disease, a protection which bears no relation to severity, the virulence of disease in races which constitute a virgin soil, and the strange manner in which new diseases arise and develop into prevalence, suggest problems of the present and questions of the future to which no answer or solution can be offered, but they need not lessen the hope that is raised by the discoveries that are now in progress.

Such are your studies in the nearer future; such your labours in the years the distance hides; and what is your reward? Small enough, as recompense is weighed in the common balance. A living; that is something. Bread—and cheese, perhaps—for each who wisely selects and patiently pursues his course of work; placing duty before pleasure, fitness before inclination, permitting no errant impulses, no distaste for steady labour, to determine his career, or any fancy-fledged ambition to tempt him to a flight beyond his powers, a flight in which he cannot hope to soar, but must from inherent weight and by all-potent gravitation, quickly fall. For every steady worker there is perhaps a more sure prospect of what is called "earning a living" than any other profession or occupation presents, with less risk of a disastrous failure from causes outside his own control. Moreover, you have other rewards if you do not wilfully close your eyes to them. Much of your daily work may be drudgery; some may be repulsive; but the subjects that engage your energies are of transcendent interest. The world is not to you as it is to most other men. To you the book of Nature lies open. The knowledge you have gained has, or should have, given to you a new interest in the world of living creatures of all kinds—ay, and in what we call dead matter too. Human life, in its development and decay, and the ever-varied phenomena of disease, present problems of the highest interest and of never-failing succession. For you, as well as for the great student of Life to whom they were addressed, the poet's lines are true, if you will make them so:—

"Nature, the old nurse, took
The child upon her knee,
Saying, 'Here is a story-book
Thy Father has written for thee.'
And whenever the way seemed long,
Or his heart began to fail,
She would sing a more wonderful song,
Or tell a more marvellous tale."

But greater still as a reward for your labour should be the consciousness of the character of the work you are doing. To relieve suffering, to cure disease, and, above all, to preserve health—these are the objects of your life. It is to achieve these that your energies are taxed, your drudgery bestowed, your days and your nights devoted. Each hour's work sees, or should see, these ends in some measure achieved. Failures must come, and, baffled in many a struggle, you may at times despond; but remember that the good you do is always far more than you can see. Our failures are obtrusive; our greatest triumphs often imperceptible. "Nature effected a cure" we or others say, and say correctly, but it is certain that Nature would often effect a death were it not for the guiding influence of medical treatment; an influence that we often cannot trace in the unit, but which comes out clearly enough in the aggregate. In the region of preventive medicine the results, however vast, are, taken separately, quite invisible. We can no more trace the influence that keeps a man in health, who would have otherwise have died of fever, than we can trace the breeze that wafts a cloud across the summer sky. Hundreds of persons every day are saved from disease without the fact being known to them, or to those who save them. Is it no reward to have the consciousness that life and ease and health follow your daily path? I know that cavillers may object that motives relatively low may compel your work; that the maintenance of your own existence may be an object in prolonging that of others. But this does not influence the intrinsic character of your actions. The choice of a sphere of work you make or ratify to-day will leaven your future life, and the knowledge that the world is better for each hour's labour may be, and should be, to you a constant and enduring satisfaction.

There may be—nay, there must be—many here to-day to whom words of farewell are more appropriate than those of welcome with which I commenced. Your student life is almost over; the graver work for which you have been training is close at hand, and soon in town or country, upon sea or shore, you will have entered on it. Wherever your lot may be cast—it may be near, it may be far away, under strange stars, in unfamiliar scenes—your College looks to you, and will not look in vain, to keep her name unsullied, to make your place of study a passport among members of your calling, a guarantee of honour and trustworthiness. She looks to you, and will not look in vain, to carry on the high traditions of her past—to keep the torch she hands you brightly burning, to lighten the dark places of human life. She looks to you, and will not look in vain, to take your part, humble or high, in the great contest with disease and death, in the great work of gathering the knowledge that is power, and the wisdom that is life. Vast is the field of labour: no hand unwelcome, no effort to be spared. Fierce is the contest, unremitting; ever spring afresh the hydra-heads, and for no moment can the sword be sheathed. But it is not for ever; not, at least, in present inequality. Who that reads, with thoughtful eye, the signs of this century's advance, can doubt the issue? Though still the storm-clouds gather and the sky is dark, yet far away, and slowly coming nearer, there is light. Not we nor our successors for many generations yet to come may see it, save in glimpses few and faint. But come it will, and you may aid its advent. You may lessen the present gloom, and you may hasten the dawn, which, now flushing only here and there a mountain peak, shall surely broaden into perfect day.

ON PREPUCE GRAFTING.

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AMONG the disadvantages which may be urged against the practice of skin grafting taught us by Reverdin are the pain and scarring the patient must suffer to provide himself with the cuticular fragments required to close his granulating wound. Whilst working men yield up their arms without murmur to supply cuticle for other parts, with women the difficulty of obtaining skin increases, and with children it becomes a cruel torture which no surgeon would willingly subject his patients to if he could obtain good results by other means. It is, therefore, at children's hospitals that the difficulty of obtaining skin to cover the enormous granulating surfaces often left after burns is especially felt; and my object in this paper is to point out that at these institutions there is a plentiful supply of skin removed which may be usefully turned to account. The number of children that are brought to these hospitals for phimosis is so great that many days will never elapse without the surgeon being called upon to perform circumcision. In recommending that the skin of other patients be used to assist in the closure of wounds, I cannot too strongly urge that the surgeon should use every precaution, never to lay himself open to the charge of having thereby communicated disease. But in the prepuces of children there is seldom any danger. When, however, balanitis is associated with phimosis I always make it a practice (for the sake of the child to be circumcised) to cure the balanitis before removing the foreskin. The surplus skin of this part, from its suppleness, thinness, and vascularity, appears to be peculiarly adapted for transplantation, so that I have found grafts from this source adhere when those from other parts

have failed. And again, wounds whose granulations appeared coarse and ill adapted for grafting have accepted prepuce grafts when I little anticipated a favourable result. About three years ago a case of acute cellulitis of the lower extremity, which came under my care, resulted in extensive loss of skin both in the thigh and leg. In this case, when the granulations had assumed a healthy appearance, grafts from various sources were placed upon the wound, and I was then favourably impressed with the superiority of the prepuce skin. The coarse skin with dry cuticle upon it, which may be obtained from amputated fingers, is far less satisfactory, adhering with less certainty and growing with less rapidity. The time which may be allowed to elapse between the removal of the skin and its application in the form of small grafts to a wound I have not accurately determined, but it is probable it may be extended till signs of putrefaction begin to appear. I have not hurried to place these pieces of skin on the wound, and from half an hour to an hour may sometimes have passed before they were made use of. In no case have I placed them in hot water or made any provision for maintaining them at the temperature of the body. If the recipient for the grafts lived at a distance from the person yielding the skin, I believe the skin might be conveyed in a small glass bottle or wrapped in gutta-percha without loss of vitality for some hours. The following case, which has recently been under my care in the Evelina Hospital, will illustrate the value of prepuce grafting in children. It was reported by Mr. Milligan, the registrar to the hospital.

"M. B——, aged two years and a half, was admitted into the Evelina Hospital for Children on November 23rd, 1883. The child had been severely burned on the abdomen twelve days previous to admission. It was taken after the accident to a medical man, who applied some dressings to the wounds, but from that time till the child was admitted the dressings had been left untouched. When taken in it was in a most foul and stinking condition, as might be imagined after dressings had been left twelve days. In parts the granulations had literally grown into the dressings, and were torn in removing the lint. The size of the granulating surface was six inches in transverse measurement, and four and a half in vertical diameter. After the wound had been cleaned it was dressed with carron oil. The child was ordered milk, beef-tea, and an ounce of port wine in twenty-four hours. On November 26th, as it was sleeping and eating well, it was put on fish diet. On December 17th it was noted that the wound, though decreasing in size, was healing very slowly, the granulations being much too vascular and large, bleeding freely at every dressing. Caustic was applied from time to time. On December 30th the report remarks that the healing was progressing slowly. On January 16th, 1884, there was still an ulcer three and a half inches in transverse diameter and an inch and a half or more in vertical measurement, the edges of which were much raised, and the granulations vascular and unhealthy. Mr. Lucas took the prepuce of an out-patient, whom he had circumcised about half an hour previously, and cut from it about twenty-eight grafts, which he applied so as to form bridges across the wound. These bridges were protected by strips of green oil-silk, secured by strapping. Lead lotion was applied on lint over the wound and gutta-percha tissue externally. The grafts were protected for five days. On Jan. 23rd it was evident that nearly all the grafts were growing. The wound was divided up by bridges, from which cuticle was rapidly extending. On Feb. 1st the wound was very much diminished in size. On Feb. 14th the child was discharged cured."

It is possible that some surgeons may take a sentimental objection to this method of healing large granulating sores; but any such feeling should yield to the excellent practical results which may be obtained by it. The only reasonable argument against it is that disease might by careless grafting be introduced into the system of a healthy child; but this is so remote that with ordinary caution it would be impossible. On the other hand, I believe the prepuce of a child possesses a germinal vitality, which renders it peculiarly serviceable for grafting.

Finsbury square, E.C.

PUBLIC PARKS AND OPEN SPACES.—On the 28th ult., the two verdant spaces enclosed within Canonbury-square, Islington, were thrown open to the public.—A new public park, situated in the central part of Huddersfield, was formally opened by the Mayor on the 27th ult.

CASE OF GLIOMA OF THE PONS VAROLII.

BY H. FRENCH BANHAM, M.A., M.D. CANTAB,
PHYSICIAN TO THE SHEFFIELD GENERAL INFIRMARY.

THE subject of this case, a boy aged twelve, was admitted into the Sheffield Infirmary on Oct. 30th, 1883, and the following notes were taken at the time. Until quite lately he has been an intelligent lad and successful at school. He had measles five years ago, since which time he has been somewhat deaf, had a discharge from both ears, and been in delicate health. The discharge from the ears ceased a year ago. Slight alteration of his speech was noticed three months since, when also he began to complain of headache. Six weeks afterwards some squinting was first observed, the left being the affected eye; and he began also to be troubled with giddiness, from which indeed in walking he occasionally fell. He has not had any cramps or convulsions, or fits of any kind. He is not known to have had any injury to his head. His father died at the age of thirty-six from phthisis.

Condition on admission.—He is deaf with both ears, more especially with the left; quite conscious, but no emotional that he seems disposed to cry when any question is put to him. His utterance is drawling and indistinct. There is paresis of the right arm and leg, the movements of these members being limited, slow, and interrupted. The deep reflexes in both legs are exaggerated, but there is no ankle clonus. The superficial plantar reflexes are almost absent, especially on the right side. There is facial paralysis of the left side, and the orbicularis palpebrarum is so far affected that the eye can be only half closed, and there is congestion of the outer part of the left conjunctiva. There is extreme left internal strabismus, the right eye cannot be everted beyond the middle line, but there is no evidence of paralysis of the right internal rectus, as has been sometimes noticed in cases of paralysis of the internal rectus of the other eye. The pupils are equal and act to light. There is nystagmus of both eyes. The ophthalmoscopic examination gives evidence of commencing optic neuritis. The tongue on protrusion deviates to the right. Taste (tested with alum, sugar, tartaric acid) is rather defective. Respiration is somewhat sighing. There is no "tache cérébrale." The muscles of the paralysed parts, including those of the face, give a normal electrical response. The lungs and abdominal organs appear to be healthy. There is no pyrexia.

Nov. 8th: Since the patient came under observation, the chief changes that have taken place are: (1) his intelligence is somewhat clouded; (2) the deafness has so increased that it is now difficult to make him hear; (3) the paralysis of the arm and leg is more pronounced; and (4) he has emaciated somewhat.

The first thought that naturally suggests itself in connexion with this case is that there is a chronic abscess of the brain associated with some disease of the internal ear. I am, disposed, however, to think, from what I can learn from the boy's mother, that until lately the deafness has been somewhat slight, and might be accounted for by some catarrh of the external meatus. The pronounced deafness which at present exists is, I believe, of central origin. It is scarcely possible now to prove this by any of the ordinary tests. I am inclined to favour the hypothesis that we have here to do with a cerebral tumour, and that it is a tubercular mass or a glioma seems not unlikely. Its locality is probably in the left half of the pons Varolii on a level with the nucleus of origin of the sixth and seventh nerves. It is possibly more extensive than this, implicating, it may be, the cerebellar peduncles, or perhaps the upper part of the medulla oblongata, and involving the restiform bodies. In the position of the pons Varolii that I have indicated, the resulting paralysis would be due to the compression of the pyramidal tracts previous to their decussation, while the facial paralysis and that of the external rectus would be upon the side of the lesion. The diagnosis of tumours of the brain is beset with difficulties arising from our imperfect knowledge even now of the functions of the different parts of the brain, from the fact that tumours and abscesses occasion not only local effects by pressure and displacement, but also by the congestion, hæmorrhage, and softening which sometimes take place in adjacent structures, and also owing to effects produced in remoter parts of the brain by transmitted excita-

tion, emboli, &c. Still another source of confusion is the co-existence in some cases of several tumours in different situations.

The above notes were brought before the Sheffield Medical Society in November last. The patient's condition from the date of his first introduction to the infirmary continued (as it has done apparently from the commencement of his illness) to become progressively worse; the paralysis deepened, the deafness became absolute, and for several weeks he lay restless and almost motionless, so that it was difficult to say at any time how far consciousness was intact. Death took place January 23rd, and the following day a post-mortem examination was made.

Morbid appearances.—The only part of the brain that presented any morbid appearance was the pons Varolii. This externally was of almost more than ordinary whiteness, was enlarged to fully twice its normal size (the left lobe being much larger than the right), and the consistence of the whole was greatly increased. The transverse fibres stood out with unnatural distinctness. In the left lobe and extending inwards to near the median raphe was a semi-translucent mass about the size of a hazel nut, and presenting to the touch the feeling of firm jelly. It was of a reddish-grey colour, and merged by insensible gradations into the surrounding tissue. In the right lobe of the pons was seen a somewhat similar mass, but smaller, and of a light-grey colour. This was probably a more recent formation.

Our house-surgeon, Mr. C. Atkin, has prepared some admirable microscopical sections of the tumour, which show its minute structure to be such as was expected from its naked-eye characters. The tumour seemed to merge so gradually into the surrounding healthy tissue that it was difficult to mark out its exact limitations.

Sheffield.

THE TREATMENT OF RUPTURED KIDNEY.

By H. A. REEVES, F.R.C.S. ED.,

SENIOR ASSISTANT-SURGEON AND TEACHER OF PRACTICAL SURGERY AT THE LONDON HOSPITAL, ETC.

THE following very interesting case presents in its history and post-mortem results a very good text on which to base my views as to the management of similar cases. The comments form part of a clinical lecture recently delivered at the London Hospital.

T. W——, aged nineteen, fell from a cart, and was admitted into the London Hospital on the same day (May 13th). His seventh and eighth right ribs were fractured near the costal cartilages, and there was localised surgical emphysema. He complained of pain on the right side of the abdomen and loin, but there was no external evidence of injury. The same evening his urine contained a little blood, but only just enough to make it smoky. Between the 13th and 22nd the pain in the abdomen and flank diminished, and abdominal discomfort was only complained of occasionally, while the hæmaturia remained the same as on admission. On the morning of the 23rd he became suddenly faint, and passed a pint and a quarter of nearly pure blood, and during the next four days he passed a large quantity during each twenty-four hours. His pulse was rapid and feeble, temperature high, and surface pallid. He complained of pain over his bladder, in which region there were dulness and tenderness, so a catheter was passed, and a good deal of bloody urine and some small clots withdrawn. There was considerable vesical tenesmus, and the lad seemed to ease himself by pressing on the end of the penis. During the second week the urine became ammoniacal. On the 27th hæmaturia entirely ceased for twenty-four hours, when he had another attack which lasted until a terebinth mixture every two hours was prescribed, followed next day by subcutaneous injections of sclerotic acid. These stayed the external hæmorrhage for a few days, or perhaps it would be more correct to say appeared to stay it, for internal bleeding must have been going on, as was shown by the large quantity of blood and clots found post mortem. The abdominal and lumbar tenderness increased; the muscles on the right were very rigid. There was great pain over the region of the right kidney and over the hypogastrium, and in the former situation there was a distinct sloughy fulness. The tongue became dryish and brown at centre, the pulse and temperature indicated inflammatory mischief, and his countenance became anxious. Dr. Langdon Down and Dr. Stephen Mackenzie saw the case, in consultation with me, on the Friday of the third week of his admission, and agreed that if the lad did not improve it would be justifiable to perform nephrectomy next day. On the Saturday he was no worse than on the previous day, though in a low condition. He was seen by a senior surgical colleague, in deference to whose opinion the intended operation was not done. During the remaining week of his life there was little or no hæmaturia, but the lumbar tenderness and pain increased, and the symptoms of peritonitis supervening, he died a month after admission.

Necropsy.—This was made by Dr. Charlewood Turner, and only the important points are here given:—Body exsanguine. Rigor mortis moderately well marked. No external sign of injury. The seventh and eighth ribs were the only ones fractured. No injury to the diaphragm could be made out, and there was no pleurisy. The abdomen contained a moderate quantity of blood-stained serum, and at its right posterior aspect was a fluctuating swelling of considerable size, on cutting into which a very large quantity of blood and broken-down clots was turned out. There was much difficulty at first in recognising the kidney, but on cleansing the parts its remains were made out, and it was found that only a small portion of its upper and lower ends was left, and this was much blanched. The remains of the kidney substance formed a broken-down pulp. It could not be clearly made out if the renal vessels were torn, but the pelvis and upper part of the ureter, though severed in part, still remained attached to the organ. There was a rounded venous-looking tumour in the neighbourhood of what was taken to be the hilum, and Dr. Turner kept this for dissection to ascertain if it were a traumatic aneurysm. He has since informed me that the tumour was a false aneurysm of a branch of the renal artery. The bladder was distended to about the size of two moderate fists. On removal its coats were found much thickened and there was severe cystitis. It contained three large partly decolourised clots, the largest of which resembled a good-sized kidney potato. There was also some broken-down blood and offensive urine. The left kidney was found to be in an early stage of interstitial nephritis.

Remarks.—A noteworthy point is that an accident comparatively so slight should have produced so extensive an injury to the kidney. The lad simply fell on the ground and did not strike his side against anything, neither the cartwheel nor anything lying on the ground, and there was no evidence of a rib being driven into the kidney. The eleventh and twelfth ribs were quite intact. The cessation of hæmaturia was most likely due to hæmorrhage in the loin, and to clots in the ureter, and when either, or both, of these causes of arrest of bleeding into the bladder were removed, hæmaturia recurred. During the latter stage anæmia was, doubtless, the reason for the cessation of bleeding. Hypogastric distension, pain, vesical tenesmus and ammoniacal urine indicated clots in the bladder and cystitis; lumbar fulness and tenderness pointed to blood in the loin and advancing inflammation; and abdominal soreness with rigidity of the right abdominal muscles, indicated incipient peritonitis by contiguity with the broken-down blood-clot and decomposing fluid blood in the loin.

The history of this case seems clearly to point to the following line of treatment in similar cases. Directly it is found that bleeding is not controllable after trial of every known means, and before the patient is too weakened by hæmorrhage, and also before septic phenomena have been allowed time to develop to an uncontrollable extent, a lumbar incision should be made over the kidney, and all clots, effused blood, and débris removed, and the cavity thoroughly cleansed. Then if it be possible to make out the remains of the kidney and to find the renal vessels and ureter, these should be tied and the renal remnants removed; but as in a case like the present, such a proceeding would be tedious and dangerous, the better plan would be to introduce a drainage-tube into the loin and perform anterior nephrectomy by incising the linea semilunaris. This being completed, the abdomen and pelvis can be cleansed if there be need, and the peritoneum on the posterior wall closely stitched up to shut off communication with the external opening into the loin. The abdominal wound is then to be closed and bandaged and external urethrotomy or lateral cystotomy performed, so as to empty the bladder of all clots, to wash it out, and to drain it. Though these three operations at one sitting seem severe, yet, under the circumstances, I do not

see what less would suffice. The lumbar incision and external urethrotomy are not major operations, and of themselves need cause no great anxiety; but when complicated with an intra-abdominal operation the risk would be undoubtedly greater, though not so great as through leaving the patient alone. The urethrotomy seems called for not only on account of the inflamed condition of the bladder, but also because vesical tenesmus might seriously interfere with recovery from an abdominal operation. I believe Mr. Rawdon has recorded a case of nephrectomy in a youth for ruptured kidney, in which the patient recovered from the operation, but died not long after from septicæmia, which the post-mortem showed was due to the condition of the lining of the bladder. This gives another reason for performing urethrotomy or cystotomy; for if the bladder be well washed out and drained the chance of vesical septicæmia is considerably minimised or even annulled, to say nothing of the great prospect of rapid recovery from cystitis, which in such a case it affords.

A few weeks since, assisted by Dr. Carter, and by my friend Dr. Crabb of Holloway, whose patient the lady was, I performed lumbar nephrotomy on the right kidney for pyonephrosis, and before operation we discussed the propriety of making a permanent opening per vaginam into the bladder to relieve the conditions of ulcerated mucous membrane and contraction and hypertrophy of its walls; but after passing a large drainage-tube into the kidney it was hoped that very little pus would pass into the bladder, and this was so. The inflamed lining of the bladder, however, secreted a large quantity of pus, and this condition of the organ gave much trouble after the operation. I mention this case here because it and other similar cases I have operated on teach the necessity of draining and resting the inflamed viscus, and also that most cases of pyonephrosis are complicated with cystitis of a very severe form, and that the treatment of this is as important as that of the kidneys.

Grosvenor-street, W.

ACUTE HYDRONEPHROSIS OR DILATATION OF THE PELVIS OF THE LEFT KIDNEY;

RUPTURE OF SAC AND EXTRAVASATION OF URINE INTO THE PERITONEAL CAVITY; OPERATION; RECOVERY.

BY JOHN W. TAYLOR, F.R.C.S.,

OUT-PATIENT SURGEON TO THE BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN.

As it is very rarely, if ever, so far as I am aware, that the abdomen has been opened for extravasation of urine into the peritoneal cavity, this case seems worthy of permanent record.

E. H——, a girl, aged fifteen, came under my care at the end of July, 1883. For a week or more she had been suffering from great pain in the left side of the chest and abdomen, with frequent vomiting. On examination I found a fluctuating tumour on the left side of the abdomen, midway between the ribs and pelvis. It was bounded above by the false ribs, below by the crest of the ilium, and a line of resonance about two inches and a half above Poupart's ligament: on the outer side it was lost beneath the muscles of the loin; on the inner side it reached to the middle line. On the morning of Aug. 1st the patient had a rigor, and the temperature rose to 101° F. Vomiting continued at frequent intervals. I diagnosed the case to be one of acute hydronephrosis; and, thinking that operative measures would probably be necessary, asked Dr. Savage to see the case with me. He kindly did so on the next day (Aug. 2nd), agreed with me as to the advisability of opening the abdomen, and we fixed on Aug. 4th for the operation. The next morning (Aug. 3rd) about 8 A.M. I received a message that my patient was dying. I saw her at 9 A.M., found her with legs drawn up, pinched and anxious face, crying out with pain, and constantly vomiting. She said that she felt as if something was "running away" from her. No external discharge, however, had taken place. On examination, I found the outline of the cyst had disappeared, but fluctuation was still more evident on the left side than on the right; the abdomen was generally distended and very tender. I saw that the cyst had burst, and that no time was to be lost, as the girl appeared to be rapidly sinking. I hastily arranged for immediate operation, to which Dr. Savage and Dr. Gosling kindly came. The latter gave ether for me. About 11 o'clock I opened the abdomen in the middle line, sponged out the urine from the peritoneal cavity, emptied what was left in the cyst with a trocar and cannula, as I could not find the point of rupture, and sewed the opening in the cyst to the margins of the incision, placing a piece of gutta-percha drainage-tubing above and another piece below the cyst-opening. The stitching the sac to the margins of the wound was the most difficult part of the operation, as it was exceedingly vascular and was with great difficulty prevented from tearing. At one part the passage of the silk suture caused a rent, and the sewing had to be repeated below this opening. The operation lasted rather more than an hour. The wound was dressed with absorbent wool, and an abdominal bandage applied, the patient being replaced in bed as soon as possible, with hot-water bottles to her feet and sides. On recovering from the anæsthetic the patient expressed herself as much more comfortable for the operation, and continued so during the remainder of the day. By the next morning, however, considerable peritonitis showed itself, and for two or three days there appeared to be but little chance of recovery. Matters, however, gradually improved; by the sixth the vomiting had ceased, the pulse, which had been very weak and thready, felt fuller, and a little flatus passed from the rectum. Some of the urine from the left kidney appeared to find its way into the bladder, as on several occasions it contained blood, and the patient complained of pain on micturition. I had not passed any drainage-tubing into the cyst, but had been content to sew the opening in it to the abdominal wall. As it had to be drawn considerably out of position to fix it in the middle line, I found that I had acted unwisely in not keeping the opening patent by tubing. After a week or ten days hardly any urine came from the opening, and the sac began to refill and enlarge with corresponding aggravation of symptoms. Knowing the thinness and brittleness of the cyst wall, I did not attempt to make any very forcible reopening of the original channel, but on August 18th made a second abdominal section to the outer side of the rectus, opened the cyst again, sewed the opening in the cyst to the margins of the incision, and passed in a glass drainage-tube. From this point the patient steadily improved. She has worn the glass-tube ever since, passing urine freely through it. In this condition she remains at present. As soon as she was thoroughly convalescent I thought that matters might be made more clean and pleasant by corking the tube and allowing the urine to escape at intervals of three or four hours into a vessel instead of allowing it to constantly run away. But I found that this did not answer, slight rigors and pain returned, and the urine from the cyst, which up to this time had appeared occasionally to find its way into the bladder, from this date ceased to do so. This was inferred from the fact that the urine passed by the urethra had previously, at irregular intervals, been offensive—at these times containing a little blood and pus. From this date the urine passed by the urethra has remained perfectly free from any abnormality. I have not attempted any further operative interference since, except probing or sounding the channel to see if I could find any calculus. This was fruitless. For the last eight or nine months the girl has remained in very fair health, although her urinary fistula is of necessity a source of great discomfort to her. Every now and then the interior of the glass drainage-tube becomes encrusted and choked with deposited urine salts, when it has to be removed and cleansed out; otherwise no treatment has been required.

The following points seem worthy of notice in connexion with this case. 1. The advisability of immediate operation in similar cases where urine or other noxious fluid is extravasated into the abdominal cavity. 2. The possibility of success, although the operation may be incomplete. I did not find the point of rupture in the cyst, and therefore for three days mourned over my operation as logically incomplete and useless; nevertheless the emptying of the cyst and cleansing the peritoneal cavity were sufficient to bring about the recovery of the patient. 3. The question of further treatment. This seems to me to be a question of great difficulty. I think there is no doubt that the left ureter is now completely stopped, all the urine from the left kidney passing by the tube. Both kidneys are perfectly healthy and secreting freely. If the obstruction be a calculus, I cannot find it from the cyst, or the channel which is the remains of the cyst. If the obstruction be due to a valvular fold or coil of the ureters, as in several cases collected by Dr. Roberts of Manchester,

the only resource appears to be extirpation of the kidney. This, however, in addition to being a grave operation, is rather contra-indicated by the consideration that the abnormal tendency to obstruction would probably exist on both sides, and if a healthy kidney were removed there would be but little chance for the patient should obstruction at any time occur on the right side. Probably, if the patient became seriously dissatisfied with her present state, as I think is likely, and asks for something further to be done for her, the best course will be to make an exploratory incision in the loin, and if no calculus can be found, to remove the kidney.

In conclusion, I wish to add that my best thanks are due to Dr. Savage for his kindness in helping me with his presence and advice both at the time of the first operation and afterwards.

Birmingham.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

ROYAL HOSPITAL FOR WOMEN AND CHILDREN.

COMPLETE INVERSION OF THE UTERUS OF NINE YEARS' DURATION; REDUCTION BY AVELING'S REPOSITOR; CURE; REMARKS.

(Under the care of Dr. WILLIAM DUNCAN.)

FOR the following notes we are indebted to the resident medical officer, Dr. Sutherland:—

Mrs. H——, aged thirty-three, was admitted on Sept. 1st, 1884, complaining of constant flooding. She had always been a healthy woman till the present illness. Catamenia appeared when thirteen years old, her periods being regular. She was married at twenty-three, and has had three confinements. The first was premature, when eight months pregnant, "due to a fright"; the second was also premature, a year later, when seven months pregnant; the third was at full term, fourteen months after the second. She was attended by a midwife, and the labour lasted about two hours. After the child was born the patient says she "swooned away, and did not come round for some hours." She does not remember if she flooded then. About four days afterwards a large substance came away from her which she describes as being like "liver." She got up on the eighteenth day, but felt very weak. She suckled the child for eleven months, during the whole of which time she had a discharge, worse at times, principally blood, sometimes offensive. This discharge continued almost without intermission up to the time of admission, but was much more profuse every fourteen days, when she sometimes passed clots.

On admission she was well nourished, but very blanched from loss of blood. On examination a rounded smooth red mass, about the size of a large green fig, was found in the vagina. Its upper end was narrower than the lower, and the finger passed from its surface on to the vaginal roof without being able to detect any dip or groove whatever. There was no trace of the os uteri, and the sound could not be passed. Abdomino-rectal examination showed the absence of the uterus from its normal position, and the sound in the bladder could be made to touch the finger in the rectum without any difficulty. The mass could be drawn down to the vulva by means of a pair of vulsellum forceps. This caused no pain whatever, and then the finger in the rectum felt the round depression of the inverted fundus. The orifices of the Fallopian tubes could not be seen, as the vagina was very narrow, but two depressions (one on either side) were felt, and evidently corresponded with them.

Sept. 2nd, 4 P.M.—The cup of Aveling's repositor was introduced into the vagina, and a moderate amount of elastic pressure applied in the usual manner on the stem. A hypodermic injection of morphia (one-third of a grain) was given.

On Sept. 3rd the patient had slept well, and appeared comfortable. Temperature 99·8°; pulse 96. There was no hæmorrhage during the night, but for two hours a considerable amount of blood had been lost. The repositor was then found to have slipped in front of the uterus; it was replaced, and fixed not so tightly as before, and a few carbolised plugs were put into the vagina. The urine was drawn off twice by catheter. In the afternoon the repositor was removed, when the uterus was found to be *in statu quo ante*. After the vagina was well syringed out with carbolised water, the repositor was reinstated, the vagina plugged all round it, and considerable pressure applied, the patient being ordered to be kept under the influence of opium.

4th: The patient had a little pain during the night, but slept well. In the morning the stem appeared to have entered the vagina further, but was allowed to remain undisturbed until Dr. Duncan's visit 4 P.M.: On removing the plugs the uterus was found not only to be completely reduced, but the cup of the repositor was in the uterine cavity, and the os uteri tightly contracted on the stem. The patient was placed under the influence of chloroform, the os dilated as well as possible by means of Barnes's bags, but even then great difficulty was experienced in extracting the cup, owing to a very tense ring of fibres which resisted the force of the hydrostatic dilators. The stem was unscrewed from the cup, which latter was then seized sideways with a strong pair of lithotomy forceps, and after considerable and prolonged traction it was extracted, but not before there was some tearing of the uterine fibres. Previous to this an unsuccessful attempt was made to divide the cup with strong bone forceps. From the laceration there was sharp arterial hæmorrhage, so the cavity was mopped out with a strong solution of iron. A hypodermic injection of ergotine (one grain) was administered, and the vagina was plugged with glycerine and iodoform. The patient was ordered to be kept well under the influence of opium. A third of a grain of morphia was at once given hypodermically, and a one-grain opium pill three times a day.

On the 5th she was comfortable but felt very low; looked excessively pale; some sickness; pulse 120, small; temperature 100°. Plugs removed and uterine cavity syringed out with a one in fifty carbolic solution at a temperature of 105°. Ordered five grains of quinine three times a day. In the afternoon she was free from pain but felt uncomfortably warm; temperature 102·4°; ordered two ounces of brandy, lemon-juice, and ice.

6th: Slept little during the night; was sick after taking some milk; no pain; syringed as before; morning temperature 101·4°; evening 100·8°.

On the 7th she felt better, having passed a good night. Only complained of sickness after taking milk. Ordered a nutrient enema every four hours of beef-tea and egg. Patient asked for some beer, so was allowed one pint daily. Uterus again syringed out, but the os was so contracted that a catheter had to be used instead of the ordinary uterine nozzle. Temperature, morning, 100°; evening, 101°.

On the 8th there was a great improvement, some colour appearing in her lips, and there was no sickness or pain. Fish allowed for dinner. This was retained and enjoyed. Vagina to be washed out twice daily and an iodoform plug inserted afterwards. Ordered a mixture with ergot and tincture of perchloride of iron three times daily. Temperature, morning, 100·8°; evening, 99°.

12th: Gaining strength and colour in face; uterus rather retroverted; replaced easily; length of cavity two inches and three-quarters. Not the least hæmorrhage since the uterus was reduced on the 4th inst.

18th: Patient practically well but still weak and anæmic; uterus normal in length and direction but the os was somewhat patulous.

Remarks by Dr. DUNCAN.—This case is a very interesting one, and teaches some useful lessons. 1. It shows the absolute necessity in every case of hæmorrhage from the vagina of insisting on making an examination, even though there be hæmorrhage at the time. Over and over again have women applied at the out-patient department with this symptom, and naturally refuse examination "as they are unwell." My rule is to prescribe an ergot mixture, and tell the patient that if the loss continue at her visit the following week, unless she then consents to submit to an examination I positively refuse to have anything more to say to her. The result is she sees the necessity and readily acquiesces. If medical men would make this a rule they will save their own reputations and their patients' health, and even life, in many cases, for it is by no means infrequent to see a woman

with cancer of the uterus, too far advanced perhaps for operation, whose life might have been prolonged for years if only her medical attendant had insisted on an early vaginal examination. The patient whose case I have recorded had been losing blood for nine years. She had consulted doctors both in London and the country, who prescribed physic until, as she says, she could no longer pay for it, and yet, inconceivable as it may appear, they did not attempt to find out what she was suffering from. Surely no language would be too strong to reprehend such trifling with this poor woman's life. 2. The diagnosis was easy, although the marked insensitiveness of the uterus when laid hold of with a vulsellum was a little deceptive, as it simulated the behaviour of a polypus under a like treatment. The unusual condition is, I think, explained by the chronicity of the inversion. 3. In any case of inversion of the uterus, where Aveling's repositor is used, it is highly important that frequent examinations of the position of the stem be made in order to avert the complication which occurred in this case, for there is no difficulty in removing the cup from the uterine cavity provided the os uteri be not given time to contract over it.

ANCOATS HOSPITAL, MANCHESTER.

CASE OF FRACTURE WITH DISLOCATION OF THE ASTRAGALUS; DEATH FROM PNEUMONIA ON THE TWENTIETH DAY; DESCRIPTION OF FOOT.

(Under the care of Mr. E. STANMORE BISHOP.)

JAMES H——, aged thirty-four, married, painter, on July 30th, whilst painting a wall, standing on a ladder thirty-six feet from the ground, felt the ladder slipping along the wall against which it was placed, and to save himself jumped off, coming to the ground upon his feet. He does not know whether his heel or his toes touched the ground first, but as he slipped and fell backwards, cutting the back of his scalp, it is probable that he lighted first upon the heel.

The patient was admitted about 5 P.M., when the scalp wound was brought together. He was suffering great pain in his foot, which presented the following appearances. On tracing down the tibia and fibula no fracture could be detected; the points of the malleoli were perfectly well marked, but the anterior line of the external one had not the defined outline of that of the other leg; there appeared to be some fulness anterior to it. The scaphoid tubercle could be felt in its normal position, and the distance between the base of the fifth metatarsal bone and the tip of the external malleolus was normal. The post-tibial and the dorsalis pedis arteries pulsated naturally, and the foot was warm. There was marked inversion and apparent shortening of the inner side of the foot, which was in the position of slight equino-varus. The skin was not broken, but the dorsum was much bruised and ecchymosed. There was crepitus on movement. On the dorsum, mainly outside the median line of the foot, and directly in the line of the medio-tarsal joint, there was a projection about half an inch wide, over which the skin was tightly stretched. It was bounded by straight lines behind and before, slightly converging outwardly, and on the inner aspect and to the inner side of the median antero-posterior line of the foot by another straight line at right angles to the two first mentioned. The fingers passed clearly down behind the projection, between it and the anterior surface of the tibia. The upper surface was smooth and bevelled off towards the outer side of the foot. The heel was slightly displaced inwards, forming with the leg an angle of 135°. The muscles were spasmodically contracted. Chloroform was given. The ankle-joint now appeared abnormally movable, especially inwards, and the foot could be drawn easily downwards in the axis of the leg. Crepitus was very distinct, and occurred on flexion, extension, abduction, or adduction. Extension in the axis of the leg being kept up, pressure upon the prominence in a direction backwards, downwards, and inwards caused it to disappear with a sudden movement, and flexion and extension could now be made easily, and apparently almost to a normal extent. The bruised skin was covered with collodion, and the leg put up on a back splint with footpiece at right angles and short side splints. The whole was then slung to the cradle.

On recovering from chloroform the patient expressed great relief from pain and perfect ease as regarded the foot, nor did he again complain of any pain there except from a bandage which was applied rather tightly some time after. This being loosened there was no further complaint.

Next day and for three or four days afterwards crops of bullæ rose on the dorsum of the foot, and on the outside of the heel, filled with serum, which were emptied and dried up. The foot remained warm. There was much troublesome constipation, and the patient was rather restive under confinement to bed.

All went on apparently well until Aug. 14th, when he became more restless, with dry tongue, quick and shallow breathing; temperature 102°. There was dulness on percussion over the right chest in front, over the two upper interspaces, and behind below the level of the sixth rib. He was ordered ten grains of an effervescent saline with ipecacuanha and quinine three times a day; whisky and milk, beef-tea, &c.

On the 15th the foot was easy, and on removing the splints appeared to be in good position, except that the extensor tendons were more prominent over the ankle than normal. There was no prominence in front of the bone in the place where it was felt at first. A large bulla on the outer side of the heel had been broken, and there was some superficial purulent discharge from the raw surface exposed. Foot quite warm. Temperature 103°. Breathing was still very rapid. The dulness had not increased. The patient had brought up some frothy sputum, tinged with blood.

16th: Temperature 103·4°. Breathing easier. More food had been taken, and the patient had slept a little. He complained of some pain in the chest, none in the leg. To have an enema for constipation.

17th: Temperature 103·6°. Breathing very quick and short. Tongue drier and browner in centre. To have chloric ether, ammonia, and ipecacuanha. Quinine to be continued, one dose of twenty grains given.

18th: Temperature 102·4°. Patient appeared rather easier this morning. No pain in foot or leg. No œdema; foot perfectly warm. Breathing very short, however, and dulness increased over the front of the chest; some dulness and pain on the left side. Patient not taking much food, but some whisky and milk. He became rapidly worse and died the same night.

Necropsy, eighteen hours after death.—As permission was only given to examine the leg, no other part was opened. An incision was made from the base of the fifth metatarsal backwards and curving round behind the external malleolus, ending two inches above its tip, another at right angles to this across the dorsum, and the soft parts reflected. These were infiltrated with dark blood, but there was no rupture of the extensor tendons or of the anterior tibial vessels or nerve. The extensor brevis was torn. The middle part of the external lateral ligament was merely a shred connecting the broken tip of the external malleolus to the os calcis; the anterior part was intact, but stretched and attached to the posterior fragment of the fractured astragalus. The dorsal calcaneo-scaphoid and the dorsal calcaneo-cuboid were ruptured entirely with the exception of a few fibres at the lower edge of the latter. The superior talo-scaphoid was torn through; but the internal talo-scaphoid was intact, and had acted as a pivot on which the anterior fragment of the astragalus had rotated. The strong internal lateral ligament of the ankle was intact, and the tendon of the tibialis posticus passing over it was in its normal position. The ligaments between the tibia and fibula were normal, and there was no sign of any attempt at separation between the bones. Of the bones, only the external malleolus, astragalus, and cuboid had suffered. The os calcis, tibia, scaphoid, and cuneiform were not injured. The external malleolus, a wedge-shaped piece of bone, the base external and involving the tip, attached by the posterior portion of the external lateral ligament to the posterior fragment of the astragalus, slightly by periosteum to the fibula, and by the remains of the middle portion of the external lateral ligament to the os calcis, lay pretty much in its normal position to the fibula, but behind the astragalus. The astragalus was divided into two main portions by a fracture which passed obliquely backwards and inwards, and from above downwards and forwards, along the line of the interosseous ligament, which was utterly destroyed. The posterior and outer fragment, which had given a feeling of fulness in front of the external malleolus, was attached to the external malleolus by the posterior and anterior portions of the external lateral ligament, the anterior portion of which, after the fracture of the posterior and inferior edge of the fibula, having carried it slightly outwards as it was jerked forwards by the original force. By the passage forwards of the astragalus, the posterior edge of the tibia and fibula were approximated to the os calcis, the

posterior ligament being intact and doubled in. The anterior and inner fragment, of which the articulating surface for the scaphoid had formed the prominence first seen, was attached solely by the internal talo-scaphoid ligament, and upon that as a pivot it had rotated in such a way that its anterior surface or head looked upwards, forwards, and outwards—its fractured extremity downwards, backwards, and inwards. A portion of its articular surface looking towards the internal malleolus was torn off and still attached to that bone by the internal portion of the deltoid ligament; by which, also, the fragment was retained in its normal position. The cuboid was crushed badly, lines of fracture extending through its external and anterior aspects, but its internal surface still articulated firmly with the external cuneiform and its posterior surface, though loosened by partial rupture of its ligament, from the os calcis, was uninjured.

Note by Mr. BISHOP.—As the fracture appeared to be reduced at the time, I presume that the movement of carrying the body from the ward to the mortuary after removal of the splints, which was done without my knowledge, reproduced the original condition. The case is recorded mainly in order to describe as minutely as possible the condition produced by the injury. The bones were removed, and are in the museum of the hospital.

Medical Societies.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT the annual meeting of the above Society, held on July 4th last, Dr. J. L. W. THUDICHUM, President, delivered an address. He said the Society might look back upon the session just ended with satisfaction and pride, and take from its success the assurance of a future in which its usefulness will increase and its importance develop. Their proceedings have not been tinged by the slightest discord; on the contrary, there had been a universal concurrence of goodwill on all sides. He had received from the officers, the council, and from the Society at large the most generous support. In founding the Cavendish Lecture the Council laid down the principle that it should be dedicated not only to medical but also to general philosophical objects. Perhaps it might be thought that a man whose life was mainly devoted to the elucidation of facts should not be made the patron of philosophical ideas; but this doubt will vanish when it is considered that such work as Cavendish performed is imperishable as well as luciferous. True, Cavendish remained an adherent of the doctrine of phlogiston to the end of his life, which occurred in 1810, at the age of seventy-nine. But stability was the tenour of his mind, and when he studied an object he seized it with tenacity, and held it as long as it yielded any results by the most varied treatment. Unlike Priestley, his great contemporary, he was of a retiring disposition, and several of his discoveries were not published early enough to secure him his well-earned priority. Many of the questions in chemistry, raised by Priestley's observations, Cavendish treated successfully as regards the discovery of new facts, although the phlogiston theory did not allow him to develop their correct bearing. But what he found allowed at once the truth to be seen, says Kopp, as soon as it was considered by an inquirer like Lavoisier, whose view was no longer dimmed by that splendid hypothesis. Cavendish confirmed Black as to the peculiarity of fixed air (carbonic acid), in 1766. In the same year he showed that the combustible air from metals is also a specific body. He found hydrogen by bringing zinc or iron in contact with dilute acids, and found stoichiometric relations: equal weights of zinc, with sufficiency of either of different acids, gave equal volumes of gas. Equal weights of different metals, zinc and iron, gave unequal volumes of gas; the relations of these to each other were estimated with remarkable accuracy. He found the burning air explosible when mixed with common air; he observed its lightness, a low specific gravity, as one-eleventh of common air (correctly, one-fourteenth). This led to the consideration of the specific weights of gases as a means of their distinction from each other. He dried his gases, and, when measuring this volume, observed pressure and temperature. He used mercury as isolating liquid. He examined, chemically, water from a London well (1767), and discovered incidentally the solubility of lime carbonate by an excess of carbonic acid. In 1783 he published an analysis of common air; this was so accurate that he stated air to contain 20·8 vols. of dephlogisticated air (oxygen), actually 20·9. In 1781 he investigated the cause of the disappearance of dephlogisticated air; the phenomena of the oxidation of metals, the combination of sulphur and phosphorus. When he expleded a mixture of combustibles with common air he obtained moisture; when he exploded two volumes of combustible with one volume of dephlogisticated air he also obtained moisture, and no air was left. Thus the composition of water was discovered. In 1875 he found the formation of nitrous and nitric acid by the agency of the electric spark. He retired from the active pursuit of chemistry after the new views had prevailed over the hypothesis of phlogiston. Let us hope that a future Cavendish lecturer may make his discoveries and their experimental illustration his subject. The speaker then alluded to the influence of Darwin on facts and theories, and deduced as the main result that our endeavours must be to establish firm data before constructing any far-reaching hypotheses or theories. In this endeavour our future is secure of results which will advance our science.

ACADEMY OF MEDICINE IN IRELAND.

AT a meeting of the subsection of Anatomy and Physiology, Professor J. M. Purser in the chair,

Mr. KNOTT read a paper for Dr. J. M'Donnell on the Development of the Eye in Vertebrata and its bearing on the Darwinian Theory. In the absence of the author, the paper was not discussed.

Mr. KNOTT read a note on a specimen of the Musculus Sternalis. He said he had some weeks before met with a bilateral specimen of the musculus sternalis of perfectly symmetrical arrangement. Arising from the cartilages of the third, fourth, and fifth ribs, and the edge and front of the sternum, it passed upwards to be blended with the sterno-mastoid of the same side. Twigs of the intercostal nerves were traced into it. The various homologies of this anomalous muscle which had been advocated by different authorities were then noticed; and, while admitting that each might satisfy the observers in certain cases, he feared that anatomists, in endeavouring to connect the structure in all cases with the same stratum or group of muscles, had fallen into the same difficulty as the travellers in the desert who came to loggerheads on the subject of the colour of the chameleon. He had no doubt that in the present case it could be more distinctly referred to the sterno-mastoid than to any other muscle. It was sometimes directly continuous with the rectus abdominis, and in others appeared, as in the series of specimens exhibited by Mr. Abraham, to be a part of the great pectoral, a view so ably advocated during the present session by Professor Cunningham. The idea of its relationship with the panniculus carnosus presented probably the greatest difficulties to its acceptance. Its depth of position, thickness of stratum, presence of strong tendinous extremities, and powerful attachment to bone were all against this hypothesis, which, the speaker thought, should be entirely abandoned. He believed that the anomalous muscle was of variable origin, and might in individual instances be referred to any of the other sources given, or even be a muscle *sui generis*, but the hypothesis of a community of origin for all the aberrant specimens described and figured by various observers under the name of musculus sternalis could not bear close investigation.—*Professor* CUNNINGHAM remarked that since he had first recorded the source from which the musculus sternalis receives its nerve of supply, he had been so fortunate as to meet with three additional cases. In all these the same nerve was found, although in two instances its continuity from origin to termination had not been fully made out. One of these cases he had mounted as a permanent specimen. He had traced the terminal twigs of the intercostal nerves into the musculus sternalis, but had always managed to follow them through it as they passed to the surface. In no case had he observed them giving filaments to the muscle. They pierced it in the same way as they pierced the pectoralis major. The argument which Dr. Knott adduced against the musculus sternalis belonging to the same group as the platysma could not be entertained for a single moment.

It was true that the platysma shows little or no bony attachment; but attention must not be confined to man, in whom this group of muscles is but feebly developed. In quadrupeds portions of the panniculus carnosus shows strong attachment to bone, and even in some cases are concerned in producing direct movement of the humerus at the shoulder-joint. Whilst repudiating this argument, however, he agreed with Mr. Knott in considering that the musculus sternalis has no relationship with the platysma myoides. He drew his proof from its nerve of supply.—Mr. ABRAHAM said the evidence of Mr. Knott was negative rather than positive as regarded the nerve supply, and Mr. Knott had not stated whether the specimen was dissected by himself or was simply shown to him after partial dissection and destruction by students. He corroborated what Professor Cunningham had said about his last muscle. The thoracic nerve was quite distinct.—Mr. KNOTT, in reply, observed that what Professor Cunningham was pleased to call "his proof" proved absolutely nothing, as the nerve supply from a common origin in some cases merely increased the probability that it belonged in those instances to the pectoral group, which had been fully admitted. With regard to the bony attachments of the panniculus carnosus, they could not for a moment be compared in strength and firmness of union with those of the deeper muscles. In reply to Mr. Abraham's remarks, he admitted that part of his evidence was negative, but he saw no reason to doubt that the muscle was wholly supplied in his specimen by the intercostal nerves. They were found entering the muscle and branching in it. Nothing more could be made out without microscopic examination.

Mr. ABRAHAM exhibited Six Chinese Skulls, concerning which he read a communication.—Professor CUNNINGHAM said he had measured the six specimens in Trinity College. Three were casts, but still of course they served equally well for working out the cephalic index. All, with one exception, were in the mesocephalic group. One, however, was markedly brachio-cephalic, well within that group, which was a curious point.—Mr. ABRAHAM remarked that skulls of one race differed among themselves in every point, and valid results could only be obtained by taking a large series for comparison.

Reviews and Notices of Books.

The Science and Art of Surgery, &c. By JOHN ERIC ERICHSEN, F.R.S., LL.D., F.R.C.S., Surgeon Extraordinary to Her Majesty the Queen; Emeritus Professor of Surgery and of Clinical Surgery in University College, &c. Eight Edition. Revised and edited by MARCUS BECK, M.S. and M.B. Lond., F.R.C.S., Professor of Clinical Surgery in University College, London. Two volumes. London: Longmans, Green and Co. 1884.

A Manual for the Practice of Surgery. By THOMAS BRYANT, F.R.C.S., Lecturer on Surgery at Guy's Hospital; Member of the Council of the Royal College of Surgeons. Fourth Edition. Two volumes. London: J. and A. Churchill. 1884.

WERE the general merits and qualities of these two works less known and recognised the simultaneous issue of a new edition of each would afford a convenient opportunity for instituting a comparison and a contrast of their respective virtues and value. Happily (for the critic), this has now become a work of supererogation. Mr. Erichsen's treatise appears with the prestige of thirty years' approbation and success, and Mr. Bryant's manual with that of twelve years. The place of each in professional estimation is more or less permanently fixed; judgment has been given, the justice of which is not likely ever to be seriously impugned. It may at once be unreservedly said that each is, in its own peculiar way, pre-eminent, and that both are equally creditable to their authors, and indeed, to English surgeons. So firmly are both these works established in public favour, that under ordinary circumstances it would perhaps have been enough to announce that Mr. Erichsen's had reached an eighth edition, and Mr. Bryant's a fourth edition: but the circumstances are not ordinary, at least, so far as concerns the former. What constitutes the chief peculiarity we shall consider presently. Without more ado we may here take leave of Mr. Bryant's book by congratulating the author upon the continued and increasing success of his work, adding the assurance that the new edition exhibits no abatement in the careful efforts to make the revision genuine and complete, and to keep it up to the level of the best contemporary knowledge. Novelties of fact and of suggestion have been discriminately recorded and intelligently criticised; previous utterances have been honestly reconsidered, and if necessary, expunged or amended, and at the same time no pains have been spared to give clearness and precision to every statement whether of deed or of doctrine. By its style and arrangement, by the comprehensiveness of its survey, and by the nature and quality of its subject-matter, both as to text and illustrations, and by virtue of embracing the principal specialties of diseases of the eye and the ear, the new edition of Mr. Bryant's work may be confidently recommended as an excellent manual for the student, and as a safe, sure, and not too garrulous guide for the practitioner to every department of surgery.

The circumstances under which the new edition of Mr. Erichsen's treatise makes its appearance are so altered and unusual that they will justify a more detailed and critical examination than it has been thought necessary to bestow on Mr. Bryant's new edition; indeed, they seem to demand it. For more than five-and-twenty years "Erichsen" has, in this country, been the most approved text-book on surgery for the abler or more advanced student, and the "liveliest pledge of hope in fears and dangers" for the practitioner; while its own intrinsic merits, conjoined with accidental and extraneous circumstances, have secured for it the honour of being the chief, if not sole, representative of English surgery abroad. Time, which has brought deserved fame and honours to the author, has likewise enhanced the reputation of his works, and now, in spite of the appearance of powerful competitors and rivals, "The Science and Art of Surgery" stands as high in professional favour and confidence as at any period of its existence. But time and honours have their drawbacks; famous men have scanty leisure, and tasks which they were wont to accomplish single-handed call at length for coadjutors. So it has happened to Mr. Erichsen, for though still evidently keeping control and supervision over the main character of his work, he has deputed to Mr. Marcus Beck the labour of preparing a new and revised edition. Not that this is the first time that Mr. Erichsen's work has had the advantage of Mr. Beck's learning and literary skill, but it is the first time that this gentleman's name has appeared on the title-page as the avowed and responsible editor. This notification presumably implies a greater scope and licence to the editor than heretofore, though the original author (in his preface) remains surety and sponsor for the whole.

It is needless to remark that Mr. Beck's editorship affords at once a substantial and sufficient guarantee that the revision has been conscientiously and painstakingly performed, and that everything that is best and everything that is newest in surgical knowledge and literature has been laid under contribution. And as a matter of fact it would be difficult to praise too highly the greater part of the work that more obviously proceeds from Mr. Beck's head and hand. Every page shows marks of his improving touch, of his wide knowledge, his rich experience, sagacity, and research. The illumination of his knowledge and intelligence is, however, most conspicuous in the domain of pathology, and more especially in those places that take in the facts and doctrines of inflammation, of septic and infective diseases, and of surgical diseases of the kidneys and other urinary organs. It would be surprising if, in a work so extensive, no error or mistake should occur. Doubtless some of both

may be found. In the interpolated historical notice of the operation of amputation, for example, it might be objected that the description of the Hippocratic plan of dealing with a gangrenous limb is misleading if not positively incorrect; that the title of James Yonge's work is given as "Currus Triumphalis e Terebinthino" instead of "Currus Triumphalis e Terebintho"; that Guido de Cauliaco is called "Guido di Cauliaco"; that the name of the English surgeon Lowdham, who was one of the first to suggest the plan of cutting a flap, is several times given as "Lowndham." These are, however, comparatively unimportant and venial faults. We may confidently repeat the conviction that Erichsen's "Science and Art of Surgery" will continue to hold its place as the best exposition in the English language of those branches of surgery with which it deals.

We should have been glad if we could have ended this notice of Mr. Erichsen's new edition in a strain of unqualified approval and praise; but the requirements of critical justice will not so easily be satisfied. And, first of all, we must enter a protest against the mercilessness with which every succeeding edition is augmented in bulk. The seventh edition contained nearly four hundred and thirty pages more than its immediate predecessor, and now the eighth edition contributes a further addition of four hundred and fifty (allowing for the omission of the chapter on Eye Operations), making an aggregate increase of nearly nine hundred pages in two editions. If this tendency is not checked, "Erichsen" will soon become impracticable for most students. To the student of these days there is a serious meaning in the adage *Μέγα βιβλίον μέγα κακόν*, which freely translated is "a big book's a great nuisance." Already the student shows a willingness to adopt the expedient of "cramming" the smallest manuals that pushing teachers and enterprising publishers can be found to supply. It is useless to oppose this tendency unless authors will learn to distinguish between *addition* and *edition*. What an example did Syme set in this respect. Each succeeding edition of his work is said to have got fuller of matter and smaller in size. Doubtless it is a hard and not altogether agreeable task for an author to erase what a few years before he had prepared with such approving pains; but it is still harder to make the student a victim of an author's complacency, want of leisure, or literary vanity. It is unreasonable to expect a student to read two thousand three hundred and thirty-four pages of a work which deals with general surgery only, and which compels him to seek his knowledge of the literature of diseases of the eye, the ear, and the skin from separate and special works. This is a view of the matter we earnestly commend to the consideration of Mr. Erichsen and his colleague. We do not advocate the introduction of chapters dealing with the diseases of the eye, the ear, and the skin; we merely plead in the interests of the student that the rest of the volumes should be correspondingly reduced in bulk; and when we speak of the interests of the medical student, we mean, in the case of Mr. Erichsen's work, the interests of surgical education.

Turning to the second chief fault of the new edition, it is impossible to ignore an alteration of tone and temper as regards some controversial matters. In speaking of the preceding edition of Mr. Erichsen's work, we said: "There are no random statements, no scientific fopperies, no dallyings with fashionable pathological doctrines merely because they are fashionable." It would not be possible, without considerable reservation, to repeat this language. For example, there is no concealing the fact that the state of mind in which the question of "Listerism" is now considered is no longer the judicial and impartial state to which Mr. Erichsen had accustomed us, but rather that of indiscriminate partisanship. We do not for a moment wish to question the truth of the doctrine that underlies the method of "Listerism," nor to gainsay the alleged success of the plan. It would be altogether out of place to do so here, even if our faith were less than it is. What we disapprove relates neither to the truth nor the error of this or that theory, but only to an extravagance of language unbecoming a scientific exposition. We need only to mention to condemn them such terms as "absolute prevention," "perfectly," &c., in speaking of "Listerism," and the "very uncertain" or "fails completely" of rival modes. The use of such terms is perilous alike to those who employ them and to those who read or hear them. How perilous the following may show. The treatment of fractured patella by opening the joint and wiring the fragments is thus spoken of (vol. i., p. 613):—"In this country it was first suggested by Lister as being free from danger, provided strict antiseptic treatment was adopted. ..... The operation has been performed now a considerable number of times, and *all recorded cases have so far been successful*" (the italics are our own). This statement is allowed to appear in September, 1884, or ten months after the discussion at the Clinical Society of London, and after a special and detailed report (which appeared in our columns) of a fatal case due to septicæmia in King's College Hospital, in spite of strict Listerian precautions (THE LANCET, Nov. 17, 1883, pp. 856 and 860). About the time that the subject of fracture of the patella was being debated at the Clinical Society, we announced that M. Chauvel, in a discussion at the Société de Chirurgie, had referred to a collection of thirty-eight cases, four of which had been done without antiseptics, before the year 1877. Out of the thirty-eight cases there were twenty-eight good results, and ten were not successful. Three deaths were recorded, two from septicæmia and one from carbolic acid poisoning; and in one case amputation had to be performed (THE LANCET, Nov. 24th, 1883, p. 917). The truth seems to be that on the score of mortality alone the treatment of fracture of the patella by wire suture is nearly as hazardous as the operation of ovariotomy. The climax of enthusiasm is, however, reached in the following passage: "However much the details of the *Antiseptic Method* may be varied in the course of time and by the introduction of new chemical agents, the grand principle which sub-lies [*sic*] it, and on which the whole superstructure of its details is built, will run on intact and unchangeable. ..... The Principle [with a capital P] itself is immutable" (vol. i., pp. 3, 4). This is Finality indeed. It reads like a dictum of a modern Athanasius, and one looks instinctively for the words, "Which Faith except everyone do keep," &c. Mr. Erichsen had already told us that the operative part of surgery had attained almost finality, and we believed him; and now Mr. Beck (are we right in saying so?) assures us that the science of surgery has also reached its utmost limit. Must we believe this too? How does an "immutable" principle work in other departments of natural science? Take optics, where the data are most numerous and least conflicting. There is almost an overwhelming amount of evidence in support of the truth of the undulatory theory of light, but did it ever enter into the mind of Thomas Young or of John Herschel to declare this theory "intact, unchangeable, and immutable"? The last-named philosopher laid it down that "the grand and indeed only character of truth is its capability of enduring the test of universal experience and coming unchanged out of every possible form of fair discussion." Has this so-called "immutable" principle underlying "Listerism" stood this test? Does it compel the universal assent of scientific experts? Are all practising surgeons convinced of its truth? Mr. Bryant is far more modest in forecasting the future: "In fact, it may now be said that the Listerian mode of dressing has had its day, though the principle upon which it is based survives, and is likely to do so" (vol. i., p. 58). It is, however, but fair to state that Mr. Erichsen (for the sentence

must be his), with characteristic good nature, is unwilling to abandon all non-Listerians to the pains and penalties of helplessness and despair. He tells the surgeon, "If he is not in the land of 'spray-producers,' 'protectives,' and 'guards' of iodoform and salicylic acid wools, let him not despair—cold water and clean linen rags will do much to supply their place." These are gracious words; from them all heretics and unbelievers may draw courage and consolation, and in them will we rest and be satisfied.

New Inventions.

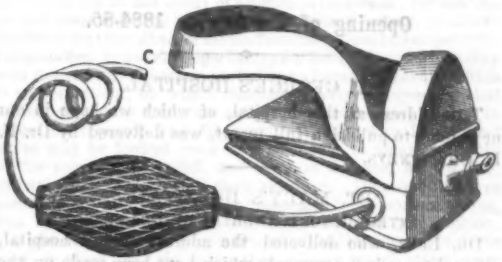
A MODIFICATION OF DR. JUNKER'S INHALER.

WHATEVER may be the future of the agent commonly called bichloride of methylene, or shortly methylene, I do not propose to discuss here. The valuable memoir of Reynauld and Villejean must go far to shake the belief of those who regard the preparation commonly sold in England as anything but a mixture of chloroform and alcohol. In the meantime there are many who prefer that anæsthesia should be induced by methylene, and this is especially the case with ovariotomists. Dr. Junker's inhaler has long been used as a convenient one for the exhibition of methylene, but those who have used it at all largely have found that it has several drawbacks which go far to restrict its use. Practical experience of its use and shortcomings has led me to attempt to remedy these; and the modified form that Messrs. Mayer and Metzler have constructed for me answers its purpose well, and obviates all the disadvantages of Dr. Junker's

FIG. 1.

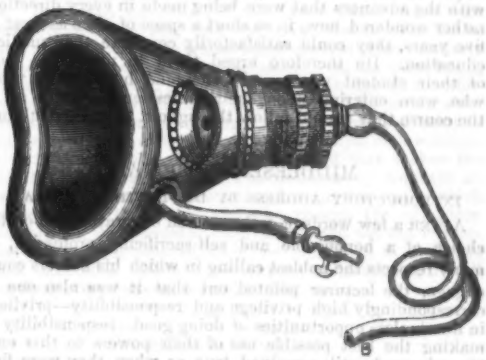
apparatus. In all prolonged operations it is necessary to refill the methylene receiver, an act accomplished with delay and difficulty in the older apparatus, as the top has to be unscrewed and readjusted. This, unless the narcosis is profound, will allow the patient enough air to partly regain consciousness—a result harmful to the patient and the operator. In the old method both hands were engaged, so that the pulse could be but imperfectly studied, while the conjunctival reflex could be tested with difficulty. Further, the administrator often found himself greatly inconvenienced in other ways for lack of a free hand. In the modified form refilling can easily be performed by the administrator himself. The celluloid stopper is removed from the feed-hole (A, Fig. 1), the methylene introduced, and the celluloid peg simply fixed by a turn of the fingers. The second difficulty, that of using the hand-injecting bag, is obviated by employing the flat-faced pedal. The straps fix this firmly to the foot, allowing the administrator to step from one side of the table to the other, if needful. The tube C (Fig. 2), of course, as in Dr. Junker's, supplies air which is forced through the receiver bottle, while Fig. 3 shows the two ends of the tube which conveys the air-diluted vapour to the face-piece. The coils of tubing have been omitted to save space in the drawing. It is important that the inlet tube should be upon the upper surface of the pedal, otherwise it becomes choked with dirt. In my inhaler I have replaced the rigid face-piece, which I have found cuts and incommodes the patient, by one made of leather and having an air cushion adjustment around its face surface, which enables one to fit it very accurately to the inequalities of the countenance. This is

FIG. 2.



supplied with an expiration valve allowing for free disposal of respired air. I find that it is quite easy to have a series of face-pieces of varying size, which may be so arranged as to either get into gear with Clover's ether inhaler or my methylene inhaler, and thus dispenses with the necessity of having a double set of face-pieces. Further, the face-piece can be removed entirely and replaced by a V-shaped tube which screws on. To the limbs of the V are attached soft

FIG. 3.



catheters, which answer admirably for giving the anæsthetic in operations about the mouth, in which, of course, a face-piece cannot be employed. The catheters pass right to the back of the nares, and so throw the vapour into the pharyngeal cul-de-sac about the larynx. I find Mr. Milles employs a somewhat similar contrivance.

DUDLEY W. BUXTON, M.D., B.S., M.R.C.P.,
Administrator of Anæsthetics at the Hospital for Women, Soho-square.

HOSPITAL SATURDAY FUND.—At a meeting of the board of delegates of this fund, on the 27th ult., it was stated that the total of the last street collection would probably prove to be, when various outstanding amounts were received, about £2800; and seeing that this, notwithstanding the wet weather which prevailed last Hospital Saturday, was £500 in excess of the 1883 collection, the idea of having a supplementary collection had been abandoned. The managers of the fund intend carefully to consider the advisability of the collection being made in June or July, instead of early in September, on account of the greater prospect of fine weather on the earlier date.

KILLED ON THE RAILWAY.—Mr. Thomas Williams L.R.C.P. Ed., whilst walking on the railway between Mold station and his residence was knocked down by a Chester train and killed instantaneously. Deceased was between seventy and eighty years of age.

Abstracts OF INTRODUCTORY ADDRESSES DELIVERED AT THE MEDICAL SCHOOLS OF LONDON AT THE Opening of the Session 1884-85.

ST. GEORGE'S HOSPITAL.

THE address at this hospital, of which we hope in our next issue to publish a full report, was delivered by Dr. F. H. CHAMPNEYS.

ST. MARY'S HOSPITAL.

INTRODUCTORY ADDRESS BY DR. LEES.

DR. LEES, who delivered the address at this hospital, referred to various comments which have been made on the subject of introductory addresses to medical students, in which the remark was made that they were sinking into lower depths of commonplace and platitudes, but, in reply to that statement, he observed that such addresses were not intended for the general public, but for the students alone. Those who addressed them had been students, and they wished to impress upon them that art was long and time was fleeting. They who knew something of the extent and variety of knowledge which it was needful for them to acquire, and found it difficult for themselves to keep pace with the advances that were being made in every direction, rather wondered how, in so short a space of time as four or five years, they could satisfactorily complete their medical education. He therefore urged them to make the most of their student years, and concluded by advising those who were entering upon their professional studies as to the course they should follow throughout their curriculum.

MIDDLESEX HOSPITAL.

INTRODUCTORY ADDRESS BY DR. DAVID W. FINLAY.

AFTER a few words of welcome and congratulation on the choice of a honourable and self-sacrificing profession, in many respects the noblest calling in which his hearers could engage, the lecturer pointed out that it was also one of correspondingly high privilege and responsibility—privilege in numberless opportunities of doing good—responsibility in making the best possible use of their powers to this end. Cicero's words still remained true as when they were first uttered:—"Homines ad deos nulla re propius accedunt quam salutem hominibus dando." What constituted, as it appeared to him, the chief attraction of the medical profession was that it satisfied both the intellectual and sympathetic side of our nature, for while the field for acquiring experience and also for research were boundless, the results arrived at were made directly serviceable in the treatment of our fellow-men, in relieving pain, in restoring function, and in saving life. A wide field was open to them for its exercise both at home and abroad. But no prosperity or distinction, nor anything else worth having, would be gained without honest and steady work, and he besought those especially who were commencing their curriculum to make a good start by cultivating habits of application and industry and method from the very beginning of their studies. He would urge upon them all the sentiment contained in one of Ovid's couplets:—

"Quæritur Ægisthus quâ re sit factus adulter
In promptu causa est; desidiosus erat."

The idle man's mind was open to attacks of all sorts of folly, and temptations to idleness and worse than idleness abounded in every large city. There was no surer way of keeping clear of all such entanglements as might lead in the end to moral loss and wasted lives than to have their minds preoccupied with something that was good and useful. Habits of idleness were too often acquired in the first year, and if the subject of them ultimately made up for lost opportunities it was only after a grievous expenditure of time and irksome labour. He did not propose to say much as to the way in which they should study particular branches, but with regard to anatomy it was hopeless to expect to acquire any useful knowledge without regular and careful dissection; and he would warn his hearers against the error of supposing that demonstrations could ever take the place of personal acquaintance, if he might so put it, with the parts of the human body themselves. In this, as in all other departments of knowledge, they must remember that—

"Study is like the heaven's glorious sun,
That will not be deep search'd with saucy looks."

He would also remind them of the paramount importance of physiology and pathology, and the necessity of unremitting attendance in the post-mortem room, where they would see and handle the results of disease.

In addressing them last year his predecessor had expressed the hope that by this time the long-looked-for Medical Bill would have become an Act, but this hope had not been realised, and legislation seemed further off now than it was then. And if they regarded the mischief that had been and was likely to be worked on the Bill of compromises actual and proposed before it arrived at its last surviving stage, they need not perhaps greatly regret that the vessel had foundered before reaching port. At the same time all the labour expended upon it and the daylight which had been let in upon some of the licence granting bodies had not been fruitless. Many of the corporations had been led to set their houses in order; and a scheme for the conjunction of the two Royal Colleges of London for the purpose of granting qualifications would probably soon be put in force, in accordance with which they would have only one examining body to face in order to gain a double qualification. If by some change in their constitution these bodies could only obtain power to confer degrees in medicine and surgery, the scheme would be complete; but there were always vested interests and difficulties to be overcome in the way of all such reforms.

No one contrasting the state of medical science now with what it was twenty, or even ten, years ago could fail to see that in this, as in other things, they lived in an age of progress. In illustration of this he might point to the discoveries which had been made in the field of bacterial pathology; to the development and extension which had taken place in connexion with abdominal surgery; to the greater precision which had been given to diagnosis in the matter of cerebral localisation; and, as regarded therapeutics, to the rapidly extending antipyretic treatment of febrile diseases, both by internal and external remedies. And in the domain of preventive medicine or public health, no less activity had been observable. He was led to refer more in detail to this department of medicine, mainly on account of its growing importance, because it had been brought so prominently before the profession and the public in connexion with the Health Exhibition, and because students, as a rule, appeared unwilling to give it the attention which it deserved. In pleading for a greater amount of attention to this department of study, it would be a strong argument if it could be shown that a notable diminution in the death-rate had already resulted from the work which had been done under the various Acts relating to the public health. The lecturer then proceeded to show that a remarkable decline in the general death-rate of England and Wales had indeed taken place, especially since 1875, the year in which the great consolidating and amending Act relating to public health had been passed, illustrating the point by charts which showed a fall from 22·8 per 1000 of population in 1875 to 18·9 in 1881, and 19·6 in 1882. Figures were also adduced to show that the total number of lives saved above the average of the ten years 1866-75 amounted to no less than 329,000. An argument was also drawn from the diminished mortality of the late cholera epidemics which had visited this country in favour of the claim made on behalf of sanitary organisation. Certain zymotic diseases were then referred to and compared with each other, the decline in mortality of those which were regarded as most preventable tending to proof in the same direction. A further argument was furnished by a comparison of results in the case of rheumatism and diseases of the respiratory system on the one hand, and typhus and enteric fever on the other, charts being referred to which showed that there was no average tendency to decline in mortality in the case of the former, while in the latter there was an almost unbroken progress downwards from first to last. Other considerations also pointed to the same conclusion;

and taking all together, they were such as to compel the belief that in the main improved sanitation and the advance of the country in the ways of health stood to each other in the relation of cause and effect. But there must be no resting in the conflict with disease and dirt, and they might cherish the hope of as great an advance in the future as there had been in the past. There was plenty of good work yet to be done, and opportunities were likely to occur in the practice of everyone. It must not be forgotten that there was personal as well as public hygiene, and that even inculcating cleanliness and the value of ventilation upon those classes of patients who were little likely, without such teaching, to be impressed with their importance, would not be done in vain. But even with the most sanguine anticipations realised, disease, like the poor, would always be with us. Hence curative medicine would always retain its importance, and there was surely room for improvement also here. With increased precision in diagnosis, which they might hope for, they must attain to more successful therapeutics. "In conclusion," said the lecturer, "let me say that there are noble traditions connected with the school which you have chosen as the home of your study; where, to speak only of the illustrious dead, Sir Charles Bell, Campbell de Morgan, and Charles Murchison have laboured and taught, and we look to you to keep those traditions bright and to reflect credit upon your foster-mother and your profession wherever your lot may be cast. If I may repeat anything I have said it would be to urge you again to earnest work; remembering that whether your talents be ten or one you will have to give an account of the use you make of them to a higher than any earthly power, and that although 'art is long, life is short.' In the words of the oldest and best of text-books, 'Whatsoever thy hand findeth to do, do it with thy might; for there is no work, nor device, nor knowledge, nor wisdom, in the grave, whither thou goest."

In the course of the address a sympathetic tribute was paid to the memory of the late Dr. J. Hall Davis, who had for more than twenty years held office in the Middlesex Hospital and School; and reference was made to the loss sustained by the cause of preventive medicine in the comparatively early death of Mr. Netten Radcliffe, one of the most indefatigable and ablest workers in the field of epidemiology.

WESTMINSTER HOSPITAL.

INTRODUCTORY ADDRESS BY DR. HUGHES BENNETT.

AFTER congratulating the students on the honours they had won, Dr. Bennett remarked that it was prudent for those about to enter on a practical career to pause at the outset to consider the ultimate object for which they now strived, and to endeavour to determine whether the means they employed were calculated to attain the end desired. It was stated as a general axiom that the final aim of every human being, considered from a worldly point of view, was to extract the largest possible amount of felicity from his existence. How this aspiration was to be best secured has always been a matter of individual opinion; and various and innumerable are the attempts which have been made to effect its consummation. The accumulation of money forms a common means by which mankind strives to reach the goal; but it was admitted that the mere acquisition of fortune did not by itself conduce to that true happiness and contentment of spirit which it was the ultimate hope of humanity to realise. To reach this end, besides mere sensuous gratification, the intellectual cravings of man must be satisfied. It may therefore appropriately be asked how far the profession of medicine affords a suitable sustenance for temporal wants and at the same time supplies intellectual occupation and gratification, the successful combination of which two elements is undoubtedly necessary for the attainment of happiness. Whatever personal qualifications deserving of respect the physician may possess, from his calling itself he gains little prestige. There is no item in the expenditure of a household more grudgingly bestowed, more liable to be questioned, or more tardily settled than the doctor's bill. There is no vocation so imposed upon, so largely called on to perform gratuitous labour, or so unthankfully acknowledged as that of the medical man. If the claims of the medical profession to public recompense and private fortune are inadequately recognised, its followers must look to another source of satisfaction as an equivalent for all their sacrifices. This, if properly sought for, will be found in the study of medicine for its own sake, in the appreciation of its intrinsic merits, and in its cultivation as a science. The truth of the axiom that knowledge of all kinds brings with it its own reward has been amply demonstrated. From the earliest ages, and among all nations, the search for and the acquirement of information have always been regarded as a source of fascination to the intellectual mind. If this is true with regard to learning in general, it applies with augmented force to the study of science in particular, for dealing as this does with the positive phenomena of nature, it affords facilities for the culture of all the faculties, gives full scope to the imagination and every opportunity for the display of originality and invention. There is probably no human pleasure which is so permanent, or which reaches so lofty a degree, as that which emanates from an ardent and successful career in scientific research and discovery. Medicine in its highest sense may be looked upon as a science. It treats not only of the prevention, relief, and cure of disease, but of life, growth, and decay, in all their bearings. Its scope involves not only the administration of remedies for abnormal states, but an acquaintance with the structure and composition, the physical and vital properties, of all substances. Medicine may, in short, be said to be that science which attempts to fathom the mysteries of life and death. This opens out a boundless and inexhaustible field of inquiry to him who searches after mental occupation, and offers an endless supply of material, which if properly cultivated cannot fail to return an abundant harvest of intellectual fruit. These considerations are all the more important when it is remembered that the path of advancement is steeper and more thorny to-day than ever before in the history of the world. Never was competition in every calling so fierce, and never did prosperity, even in a moderate degree, demand for its attainment such a union of physical and intellectual qualities. It cannot therefore fall to the lot of all to meet with great prosperity in life, and the man who is most to be pitied under failure is he whose happiness and misery entirely depend on such outward circumstances. On the other hand, he who is in love with philosophy will think lightly of sufferings and privations which to another would be intolerable. If such a one is poor in one sense, he may become affluent in another by the acquisition of valuable mental endowments, for, as Shakespeare says, "It is the mind that makes the body rich." Those therefore who deliberately embrace an intellectual career, who are imbued with the tastes which harmonise with its pursuit, and who possess the education necessary for its successful cultivation, will not fail to recognise those higher capabilities of the profession of medicine which offer such ample opportunities of gratifying in all directions every form of mental ambition.

KING'S COLLEGE.

INTRODUCTORY ADDRESS BY THE REV. DR. WACE.

AFTER some introductory personal remarks, in which reference was made to the baronetcies recently conferred upon two members of the staff, Sir W. Bowman and Sir Joseph Lister, Dr. Wace offered some observations on an aspect of medical work which it was the honour of King's College to bring prominently forward—namely, the union which their organisation established between their medical school and other departments of education, and the manner in which they were thus led to realise how closely they were all bound together in that great work of human culture and civilisation which was the immediate purpose of a liberal education for any profession. More lives were wrecked and careers disappointed by moral than by intellectual failures. "Mens sana in corpore sano" was a good maxim; but he had heard men quote it with much satisfaction whose whole attention was directed to the sanity of their bodies. Their profession would instruct them how to keep a sound body; but they could not safely disregard others if they would keep a sound mind. The address concluded with some congratulatory remarks on the position of the department and with a welcome to the new students.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.

INTRODUCTORY ADDRESS BY MR. DYER.

THE inaugural sessional address was delivered by Mr. THISELTON DYER, who remarked that his own experience

of the examination room, if it brought some satisfaction, brought some disappointment. He could see clearly enough now why it was so—viz., paying too much attention to some things and neglecting others. In checking this tendency to wander about the fields of knowledge, which ought instead to be systematically tilled, the ordeal of an examination is not to be despised. The grammar of a science must for practical purposes be as thoroughly and laboriously learnt as the grammar of a language.

CALENDAR OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THIS annual compilation has just been published by the Council of the College; from it we make the following analysis:—It appears that there are no less than 1166 Fellows on the *rôle* of the College, of whom 611 obtained the Fellowship by examination, five were elected as Members of twenty years' standing under Section 5 of Charter 15 Vict., and three are *ad eundem* Fellows. There are 16,509 Members. The Licentiates in Midwifery remain at 969; the Licentiates in Dental Surgery number 553.

The Board of Examiners in Anatomy and Physiology consist of nine members, annually elected by the Council from the Fellows of the College. It conducts the Primary Examinations in Anatomy and Physiology for the diplomas of Fellow and Member, and during the past Collegiate year has held eight meetings for the Fellowship, and forty-seven for the Membership; at the former there were 134 candidates, of whom only 56 passed, 78 being referred for six months. For the Primary Examination for the Membership there were 1108 candidates, 733 of whom passed, whilst 330 were referred for three months and 45 for six months. The fees received from candidates for this examination amounted to £61397*s.*, of which sum the Board received £2618.

The Court of Examiners consists of ten members, also elected by the Council from the Fellows of the College, all of whom, however, are members of the Council, except Dr. Humphry. During the past year the Court has held two meetings for the Fellowship, and forty-five for the pass examinations for the Membership. At the former there were 45 candidates, 30 of whom passed, 15 being referred for twelve months. For the Membership there were 804 candidates, of whom 348 were successful and 303 were rejected. The fees paid by the candidates amounted to £10,431 5*s.* The fees paid to the Court amounted to £4707 12*s.* The Board of Examiners in Dental Surgery has held three meetings for the examination of thirty candidates, twenty-two of whom received their diplomas. The sum of £346 10*s.* was paid by them in fees, of which the Board received £110 5*s.*

The income of the College from all sources during the past year amounted to £22,111 10*s.* 9*d.*, derived principally, as already shown, from fees paid by candidates for the diplomas of the College—viz., £16,917 7*s.* Rents from chambers produced £1530 18*s.*; fees paid by Members of the College on admission to the Fellowship produced thirty guineas; dividends on stock yielded £1182 19*s.* 3*d.*; from members of the Council and Court of Examiners on their election, £63. The expenditure of the year amounted to £20,046 7*s.* 4*d.*, the largest item being in fees paid to members of the Court and the Board of Examiners—viz., £7435 17*s.* The next largest amount appears in salaries and wages for the officers and servants of the College in the three departments of the library, museum, and office—viz., £3784 14*s.*; taxes, rates, diploma stamps, and insurance absorbed the large amount of £1469 9*s.* 3*d.* In the extraordinary expenditure, £700 was devoted to honoraria to Dr. Goodhart and Messrs. Trimmer and Doran. Under miscellaneous items, £431 11*s.* 6*d.* appears as having been expended, leaving a balance at the bankers of £2065 3*s.* 5*d.* The metropolitan hospitals are represented on the Council by Messrs. J. Cooper Forster (President), T. Bryant, and A. E. Durham, of Guy's; St. Bartholomew's, by Sir J. Paget, W. S. Savory (Vice-President), H. Power, and T. Smith; St. George's, by Mr. T. Holmes (Vice-President); University College, by Messrs. Erichsen, Marshall, C. Heath, and M. B. Hill; King's College, by Sir J. Lister and Mr. Wood; the London, by Mr. J. Hutchinson; the Middlesex, by Messrs. J. W. Hulke and G. Lawson; St. Thomas's, by Sir W. Mac Cormac, Messrs. J. Croft and S. Jones. Sir T. S. Wells, Bart., and Messrs. W. Cadge, W. Allingham, and E. Lund are not attached to any of the recognised metropolitan hospitals. The oldest Fellow of the College is Mr. J. M. Arnott, F.R.S., a late President of the College, who was admitted a Member so long ago as April 4th, 1817.

THE EPIDEMIC IN KIDDERMINSTER.

THE epidemic of enteric fever in Kidderminster has continued during the past week, but some abatement in its severity has now shown itself. The last reports, especially, show that the number of fresh attacks has undergone diminution. The visit which Dr. Parsons paid to the town, on behalf of the Local Government Board, was singularly brief in view of the magnitude of the epidemic, a circumstance which probably finds its explanation in the fact that the department is undermanned as regards its medical staff. The general impression which has been gained is that Dr. Parsons viewed the water-service and the relation of one of the wells to the sewage farm with grave suspicion in connexion with the origin of the epidemic, and the measures of precaution which may be taken in order to exclude any possibility of water-pollution will need to be based on skilled investigation of all the conditions liable to affect the well in question. No official report has, as yet, been issued.

At a meeting of the medical profession, held on September 26th at the Town Hall, present Dr. Roden (in the chair), Mr. S. Stretton, Dr. Langford, Messrs. D. Corbett, J. W. Colbourne, J. L. Stretton, and Dr. Measures, a prolonged discussion ensued, with minute investigation of all circumstances having bearing upon the causes of the present epidemic, when the following resolutions were unanimously agreed to:—1. That while we are unable to state positively the cause of the epidemic, we are of opinion that it was primarily caused by the water-supply, and that it has been aggravated by the imperfect drainage system and other insanitary conditions, and that there is no evidence against the milk-supply. 2. That from the evidence produced we are of opinion that the well at the sewage station should be closed immediately, and not used again under any condition whatever. 3. That proper provision should be made for the certainty of pure water in the reservoir, including the raising of the surrounding wall, and the adoption of a proper covering. 4. That immediate steps be taken to provide an additional supply of pure water at a distance from the town. 5. That the drainage system be investigated by an eminent sanitary expert; all levels, catch-pits, and ventilations to receive his especial attention. 6. That all junctions with the main sewers be examined, and certified as being in rigid order by the corporation officials. 7. That a public abattoir be constructed without delay, and that all intramural slaughter-houses be abolished. 8. That all middens and privies be abolished, and that no pigsties be allowed in the close confines of the borough, and that some measures be taken to investigate the emanations from obnoxious trades. 9. That in the meantime the free use of disinfectants should be proceeded with, including the flushing of all drains, and the watering of the streets with the same. 10. That the infectious hospital be placed at the disposal of the medical men for the admission of all cases they consider desirable, and that such admission be obtained with the greatest possible ease. 11. That a thousand handbills be printed for distribution amongst fever cases, with suggestions for the care of the patients, nursing, disinfection of secretions and linen, proper feeding, and dealing with the milk and water. 12. That a fund be started for the provision of sick nurses, to devote their time to visiting the sick poor, under the direction of the medical men.

At the same meeting a letter was read from the borough member, J. Brinton, Esq., expressing his deep regret at the suffering of those afflicted with typhoid fever, and enclosing a cheque for £20 towards the subscription to provide nursing relief, under direction of the medical authorities.

THE LANCET.

LONDON: SATURDAY, OCTOBER 4, 1884.

IT is scarcely possible that the Medical Council can on the 6th inst. hold a purely formal meeting, or one for the mere election of a President. It has to face an altered state of facts as compared with those of any recent period. The legislation which has been long expected has not been realised. Not only has it not been realised, but the circumstances of failure are significant, and constitute a subject for the serious attention of the Medical Council. The Council has never been considered very ardent in its desire for medical reform, except on one point. But on this point it has generally been consistent. The point we refer to is the necessity for the creation of Conjoint Boards. Since the time of the famous inquiry into medical education, when Professor PARKES and Professor SYME took so deep an interest in the whole question of examinations, the one subject on which the Council has given a public-spirited and decided vote has been the consolidation of the bodies for licensing purposes. The following is the resolution of the Council, on Feb. 26th, 1870, moved by the late Dr. THOMSON, and seconded by Dr. (now Sir RISDON) BENNETT, and agreed to by a majority of seventeen to one, that one, of course, being the late Sir DOMINIC CORRIGAN, who dearly loved to be in a small minority:—

"That this Council is of opinion that a Joint Examining Board should be formed in each of the three divisions of the kingdom, and that every person who desires to be registered under any of the qualifications recognised in Schedule A to the Medical Act shall be required previously to such registration to appear before one of these Boards and be examined on all the subjects which may be deemed advisable by the Medical Council, the rights and privileges of the Universities and Corporations being left in all other respects the same as at present."

On the 28th of the same month a further resolution was agreed to, on the motion of Dr. PARKES, seconded by Dr. ANDREW WOOD, to the effect that the Universities and Corporations in each division of the kingdom should be requested to concert a scheme for the formation of such a Board.

These are the fundamental principles of the Medical Council in regard to the basis of new medical legislation. They accord with the views of thousands of the profession, ascertained over and over again by memorial even *ad nauseam*. They have been endorsed by a Royal Commission. They have been adopted by every Government for fourteen years, including the present Government, which in two successive sessions has embodied them in a Bill, which Bill was on the eve of passing when a mine was sprung affecting the very fundamental part of the Bill, in the form of an amendment by Sir LYON PLAYFAIR, giving power to the Medical Board in any division of the kingdom to accept in lieu of a final examination under a Conjoint Board the examinations of a University, or of two or more Corporations, provided (*a*) that the Medical Council shall be satisfied, and (*b*) that in every substituted examination a number of examiners not exceeding half the total number of examiners shall be appointed by the Medical Board.

The Medical Bill, like many other Bills, perished under the weight of talk, chatter, and obstruction which now degrade Parliament, and take the place of legislation; but it was not concealed that the Ministers in charge of the Bill were prepared actually to abandon the principle of compulsory conjoint action on the part of existing authorities, and to agree, under the pressure of Sir LYON PLAYFAIR, to a system by which a great multiplicity of licensing authorities would be maintained; and to bolster up such a discredited system by creating new examiners to watch the work of the old ones, doubtless at the expense of the profession, who already pay too heavily for their examining mercies.

This is the *terminus ad quem* of all the efforts of the Medical Council and of successive Governments to establish a sound Conjoint Scheme in each division of the kingdom. And this is the altered situation in which the Council finds both itself and the questions upon which it and its best committees have spent so much of their time. It would be outrageous to create more examiners, when the very grievance is that we have too many already. The new examiners must either be maintained at the expense of the present examining bodies, in which case they will not be independent; or at the expense of the unfortunate students, who are already heavily mulcted in the process of becoming qualified, and who have a right to look to the Medical Council to protect them from further exactions. We cannot believe that the Council will view the existing situation with satisfaction. There may be sections of it which see in the present failure of legislation some security for the continuance of privileges which have no foundation in reason or in the respect of the profession; but the disinterested members of the Council who have at heart the true interests of the profession will see only the perpetuation of weak bodies, tempted by the love of money to trade on their high functions, and of a Medical Council incapable of controlling them, and increasingly at the mercy of the representatives of the lowest bodies. Under all these circumstances we look forward with anxiety to the action of the Council, and of those members of it which represent its best traditions.

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THE friends of the Hospital Sunday Fund have much reason to be thankful to Mr. JAMES LANE for raising the one question possible as to the advantage of Hospital Sunday to the great cause of hospital support. Has the establishment of Hospital Sunday had the effect of diminishing the number or amount of personal subscriptions to individual hospitals and dispensaries? It has often been surmised to have this effect; and Mr. LANE, in a happy moment, set about analysing the facts of St. Mary's Hospital, and, as he thought, proving that while it had received from the Fund £600 a year more than it used to get from local church collections, it had lost annually in donations, during the time of the Fund, £1745. Mr. LANE'S letter was the more valuable as written in a tone of moderation, and with obviously no ill-will to the Hospital Sunday Fund. The next day, however, *The Times* published a letter by Mr. BURDETT in answer to Mr. LANE. It was not so much an answer as a very complete and through finishing of that which Mr. LANE had only begun—viz., the analysis of the facts. It is so easy in hospital matters to make round statements and to arrive at hasty conclusions, but it is difficult to go deeply into

facts. Mr. BURDETT, however, comes to close quarters with the facts of the case, and completely pulverises the conclusions at which Mr. LANE had too hastily arrived, by showing that the defection in later years of the subscriptions to St. Mary's had other and ample explanations without any reference to the Hospital Sunday Fund; amongst others, that in the earlier period, prior to the establishment of the Hospital Sunday Fund, an anonymous and generous donor was sending £1000 a year to the hospital, which ceased in 1873. Then during the first decade very strenuous exertions were made by the hospital to raise funds to defray the expenses of new buildings; also that during that period a Hospital Fund dinner was annually held and very actively promoted, so that it yielded an average income of £1280 a year. This source of income has been allowed to dwindle, till now nothing remains of it in the hospital accounts but an average annual expenditure of £86 put down to the festival dinner. Mr. BURDETT completes his destruction of Mr. LANE'S statistics by showing that, comparing the subscriptions of the two decades, the falling-off in the latter one is only £31 per annum. Unless Mr. LANE can show that the loss of the munificent annual donation of £1000 was due to Hospital Sunday his discomfiture is complete, and it only remains for him to be thankful that the Hospital Sunday Fund has made the financial position of the hospital better by £600 a year than it would otherwise have been.

The fact seems to be this—that the older and more established hospitals are a little defective in energy and ingenuity. The very establishment of Hospital Sunday may have increased this defect, by making them feel less self-reliant. Their claims are magnificent and unanswerable; but times are bad, and claims of all sorts are multiplying, so that even charitable men readily find excuses for not supporting hospitals. The Hospital Sunday Fund is the best friend of hospitals. It stamps with religious sanctions and considerations the case and the claims of hospitals. We do not mean that the Council has yet achieved what it ought to achieve. It is too self-complacent. It makes one annual effort, and then folds its arms in satisfaction and does nothing more to raise the sunken condition of medical charities for another year. It needs to be roused to much more effort and ingenuity in the use of its great influence. By all means let it be criticised, and that severely. But it is destined to remain an institution to remind rich men of every church and synagogue that their sick brother is in their keeping, that they have to make his bed in his sickness, and that if they fail to do so an ominous and crowning condemnation will be heard—"I was sick, and ye ministered not unto me."

No one—and least of all Dr. KOCH himself—could have imagined that the discovery he declared of the specific cholerаic organism would be accepted without challenge. Nor could it be expected that in a matter of such universal interest the public mind should not be awakened by the intelligence of this discovery, and should be keen to follow the arguments and facts adduced against it. We have already spoken of the conclusion arrived at by Dr. LEWIS, and of the detection by Drs. FINKLER and PRIOR of Bonn of the "comma bacillus" in cases of sporadic cholera. This was made a subject for discussion at the Scientific Congress at Magdeburg, when it was stated by Dr. FINKLER that KOCH himself admitted the morphological resemblance between the organisms he found in Asiatic cholera and those found by FINKLER in cholera nostras. It is possible to admit this, as well as Dr. LEWIS'S facts, without materially affecting the standpoint assumed by KOCH. Again, we learn by a telegram to *The Times* last Monday that the English Commission is already at work at Bombay, and that Dr. KLEIN, to testify his utter disbelief in the specific nature of the comma bacillus, had swallowed the cultures. Might it not be possible that the ingestion of the bacillus itself does not suffice to induce cholera in a healthy man? The experiment has been made before, quite apart from any question of a bacillus. Does every human being who is exposed to the source of infection take the disease? We can imagine Dr. KOCH reproaching his fellow-scientist with having performed an experiment without fulfilling all the conditions necessary to ensure its success. For KOCH himself is careful to point out that there must be disposing conditions to account for the manner in which the cholera develops; and would be prepared to receive the intimation that the bacillus can be swallowed with impunity without his faith in his discovery being shaken. Then we have the elaborate report of the French Commission, which whilst admitting the presence of the comma bacillus, denies its pathogenic property, and seeks for changes in the blood as the initial cause of cholera—a statement supported by inoculation experiments. That the blood is profoundly altered, and that this alteration is the main cause of death in this disease, few will deny; but Dr. KOCH may well reply that the effects of choleraic poisoning have here been mistaken for causes, and he will not be unsupported in such an assertion. For our own part, we must endeavour to keep an open mind on the question, and leave it to those who are engaged in the actual research to reconcile their differences as best they may. We may, however, venture to express the hope that our English Commission will not rest content with a demonstration of the fallacies of Dr. KOCH, but will search diligently in every direction for a solution of the problem which can explain the facts of the disease in an even more satisfactory manner than he has done.

Annotations.

"Ne quid nimis."

THE OPENING OF THE WINTER SESSION.

ONCE more the cumbrous wheel of medical education has finished its annual revolution, and once again the well known cycle has commenced its usual course. Would that the beginning of the new session had taken place under the auspices of a new Medical Act! But, alas! fate has destined otherwise. Everywhere we see around us the old familiar signs of activity at the schools and hospitals. The faces of first year's men, strange in the new light which has dawned upon them, are to be seen side by side with those of the older students, ready, if not eager, for new work in new departments. The members of the medical and surgical staffs, too, greet one another and the students with kindly looks and genial manner. It is in the first few days of the new session that the mind really appreciates the value of the long vacation. Everything seems for a while to wear a new aspect, though we feel at the same time that there has been no real change.

The teaching at our hospitals and schools is a theme

of the examination room, if it brought some satisfaction, brought some disappointment. He could see clearly enough now why it was so—viz, paying too much attention to some things and neglecting others. In checking this tendency to wander about the fields of knowledge, which ought instead to be systematically tilled, the ordeal of an examination is not to be despised. The grammar of a science must for practical purposes be as thoroughly and laboriously learnt as the grammar of a language.

CALENDAR OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THIS annual compilation has just been published by the Council of the College; from it we make the following analysis:—It appears that there are no less than 1166 Fellows on the *rôle* of the College, of whom 611 obtained the Fellowship by examination, five were elected as Members of twenty years' standing under Section 5 of Charter 15 Vict., and three are *ad eundem* Fellows. There are 16,509 Members. The Licentiates in Midwifery remain at 969; the Licentiates in Dental Surgery number 553.

The Board of Examiners in Anatomy and Physiology consist of nine members, annually elected by the Council from the Fellows of the College. It conducts the Primary Examinations in Anatomy and Physiology for the diplomas of Fellow and Member, and during the past Collegiate year has held eight meetings for the Fellowship, and forty-seven for the Membership; at the former there were 134 candidates, of whom only 56 passed, 78 being referred for six months. For the Primary Examination for the Membership there were 1108 candidates, 733 of whom passed, whilst 330 were referred for three months and 45 for six months. The fees received from candidates for this examination amounted to £61397*s.*, of which sum the Board received £2618.

The Court of Examiners consists of ten members, also elected by the Council from the Fellows of the College, all of whom, however, are members of the Council, except Dr. Humphry. During the past year the Court has held two meetings for the Fellowship, and forty-five for the pass examinations for the Membership. At the former there were 45 candidates, 30 of whom passed, 15 being referred for twelve months. For the Membership there were 804 candidates, of whom 348 were successful and 303 were rejected. The fees paid by the candidates amounted to £10,431 5*s.* The fees paid to the Court amounted to £4707 12*s.* The Board of Examiners in Dental Surgery has held three meetings for the examination of thirty candidates, twenty-two of whom received their diplomas. The sum of £346 10*s.* was paid by them in fees, of which the Board received £110 5*s.*

The income of the College from all sources during the past year amounted to £22,111 10*s.* 9*d.*, derived principally, as already shown, from fees paid by candidates for the diplomas of the College—viz., £16,917 7*s.* Rents from chambers produced £1530 18*s.*; fees paid by Members of the College on admission to the Fellowship produced thirty guineas; dividends on stock yielded £1182 19*s.* 3*d.*; from members of the Council and Court of Examiners on their election, £63. The expenditure of the year amounted to £20,046 7*s.* 4*d.*, the largest item being in fees paid to members of the Court and the Board of Examiners—viz., £7435 17*s.* The next largest amount appears in salaries and wages for the officers and servants of the College in the three departments of the library, museum, and office—viz, £3784 14*s.*; taxes, rates, diploma stamps, and insurance absorbed the large amount of £1469 9*s.* 3*d.* In the extraordinary expenditure, £700 was devoted to honoraria to Dr. Goodhart and Messrs. Trimmer and Doran. Under miscellaneous items, £431 11*s.* 6*d.* appears as having been expended, leaving a balance at the bankers of £2065 3*s.* 5*d.* The metropolitan hospitals are represented on the Council by Messrs. J. Cooper Forster (President), T. Bryant, and A. E. Durham, of Guy's; St. Bartholomew's, by Sir J. Paget, W. S. Savory (Vice-President), H. Power, and T. Smith; St. George's, by Mr. T. Holmes (Vice-President); University College, by Messrs. Erichsen, Marshall, C. Heath, and M. B. Hill; King's College, by Sir J. Lister and Mr. Wood; the London, by Mr. J. Hutchinson; the Middlesex, by Messrs. J. W. Hulke and G. Lawson; St. Thomas's, by Sir W. Mac Cormac, Messrs. J. Croft and S. Jones. Sir T. S. Wells, Bart., and Messrs. W. Cadge, W. Allingham, and E. Lund are not attached to any of the recognised metropolitan hospitals. The oldest Fellow of the College is Mr. J. M. Arnott, F.R.S., a late President of the College, who was admitted a Member so long ago as April 4th, 1817.

THE EPIDEMIC IN KIDDERMINSTER.

THE epidemic of enteric fever in Kidderminster has continued during the past week, but some abatement in its severity has now shown itself. The last reports, especially, show that the number of fresh attacks has undergone diminution. The visit which Dr. Parsons paid to the town, on behalf of the Local Government Board, was singularly brief in view of the magnitude of the epidemic, a circumstance which probably finds its explanation in the fact that the department is undermanned as regards its medical staff. The general impression which has been gained is that Dr. Parsons viewed the water-service and the relation of one of the wells to the sewage farm with grave suspicion in connexion with the origin of the epidemic, and the measures of precaution which may be taken in order to exclude any possibility of water-pollution will need to be based on skilled investigation of all the conditions liable to affect the well in question. No official report has, as yet, been issued.

At a meeting of the medical profession, held on September 26th at the Town Hall, present Dr. Roden (in the chair), Mr. S. Stretton, Dr. Langford, Messrs. D. Corbett, J. W. Colbourne, J. L. Stretton, and Dr. Measures, a prolonged discussion ensued, with minute investigation of all circumstances having bearing upon the causes of the present epidemic, when the following resolutions were unanimously agreed to:—1. That while we are unable to state positively the cause of the epidemic, we are of opinion that it was primarily caused by the water-supply, and that it has been aggravated by the imperfect drainage system and other insanitary conditions, and that there is no evidence against the milk-supply. 2. That from the evidence produced we are of opinion that the well at the sewage station should be closed immediately, and not used again under any condition whatever. 3. That proper provision should be made for the certainty of pure water in the reservoir, including the raising of the surrounding wall, and the adoption of a proper covering. 4. That immediate steps be taken to provide an additional supply of pure water at a distance from the town. 5. That the drainage system be investigated by an eminent sanitary expert; all levels, catch-pits, and ventilations to receive his especial attention. 6. That all junctions with the main sewers be examined, and certified as being in rigid order by the corporation officials. 7. That a public abattoir be constructed without delay, and that all intramural slaughter-houses be abolished. 8. That all middens and privies be abolished, and that no pigsties be allowed in the close confines of the borough, and that some measures be taken to investigate the emanations from obnoxious trades. 9. That in the meantime the free use of disinfectants should be proceeded with, including the flushing of all drains, and the watering of the streets with the same. 10. That the infectious hospital be placed at the disposal of the medical men for the admission of all cases they consider desirable, and that such admission be obtained with the greatest possible ease. 11. That a thousand handbills be printed for distribution amongst fever cases, with suggestions for the care of the patients, nursing, disinfection of secretions and linen, proper feeding, and dealing with the milk and water. 12. That a fund be started for the provision of sick nurses, to devote their time to visiting the sick poor, under the direction of the medical men.

At the same meeting a letter was read from the borough member, J. Brinton, Esq., expressing his deep regret at the suffering of those afflicted with typhoid fever, and enclosing a cheque for £20 towards the subscription to provide nursing relief, under direction of the medical authorities.

THE LANCET.

LONDON: SATURDAY, OCTOBER 4, 1884.

IT is scarcely possible that the Medical Council can on the 6th inst. hold a purely formal meeting, or one for the mere election of a President. It has to face an altered state of facts as compared with those of any recent period. The legislation which has been long expected has not been realised. Not only has it not been realised, but the circumstances of failure are significant, and constitute a subject for the serious attention of the Medical Council. The Council has never been considered very ardent in its desire for medical reform, except on one point. But on this point it has generally been consistent. The point we refer to is the necessity for the creation of Conjoint Boards. Since the time of the famous inquiry into medical education, when Professor PARKES and Professor SYME took so deep an interest in the whole question of examinations, the one subject on which the Council has given a public-spirited and decided vote has been the consolidation of the bodies for licensing purposes. The following is the resolution of the Council, on Feb. 26th, 1870, moved by the late Dr. THOMSON, and seconded by Dr. (now Sir RISDON) BENNETT, and agreed to by a majority of seventeen to one, that one, of course, being the late Sir DOMINIC CORRIGAN, who dearly loved to be in a small minority:—

"That this Council is of opinion that a Joint Examining Board should be formed in each of the three divisions of the kingdom, and that every person who desires to be registered under any of the qualifications recognised in Schedule A to the Medical Act shall be required previously to such registration to appear before one of these Boards and be examined on all the subjects which may be deemed advisable by the Medical Council, the rights and privileges of the Universities and Corporations being left in all other respects the same as at present."

On the 28th of the same month a further resolution was agreed to, on the motion of Dr. PARKES, seconded by Dr. ANDREW WOOD, to the effect that the Universities and Corporations in each division of the kingdom should be requested to concert a scheme for the formation of such a Board.

These are the fundamental principles of the Medical Council in regard to the basis of new medical legislation. They accord with the views of thousands of the profession, ascertained over and over again by memorial even *ad nauseam*. They have been endorsed by a Royal Commission. They have been adopted by every Government for fourteen years, including the present Government, which in two successive sessions has embodied them in a Bill, which Bill was on the eve of passing when a mine was sprung affecting the very fundamental part of the Bill, in the form of an amendment by Sir LYON PLAYFAIR, giving power to the Medical Board in any division of the kingdom to accept in lieu of a final examination under a Conjoint Board the examinations of a University, or of two or more Corporations, provided (*a*) that the Medical Council shall be satisfied, and (*b*) that in every substituted examination a number of examiners not exceeding half the total number of examiners shall be appointed by the Medical Board.

The Medical Bill, like many other Bills, perished under the weight of talk, chatter, and obstruction which now degrade Parliament, and take the place of legislation; but it was not concealed that the Ministers in charge of the Bill were prepared actually to abandon the principle of compulsory conjoint action on the part of existing authorities, and to agree, under the pressure of Sir LYON PLAYFAIR, to a system by which a great multiplicity of licensing authorities would be maintained; and to bolster up such a discredited system by creating new examiners to watch the work of the old ones, doubtless at the expense of the profession, who already pay too heavily for their examining mercies.

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Sir J. RISDON BENNETT delivered a thoughtful and able inaugural address at St. Thomas's Hospital, commencing with a saying of Dr. JOHNSON, that "to judge rightly of the present we must oppose it to the past." The various and ever-varying mental manifestations of patients were pointed out as a fit subject for earnest study. "In the more strictly scientific departments of the investigation of disease—etiology, diagnosis, and prognosis"—mental manifestations are of great moment. Sir RISDON was of opinion that many more of our most important diseases than we have hitherto imagined owned not merely a nervous but a strictly mental origin. Indeed, perhaps the most valuable portion of Sir RISDON'S lecture related to the unfolding of his thoughts on the agency of the mind in the production of disease and in the recovery from illness. A remedy might owe a large portion of its beneficial effect to the mental state of the sufferer. It has become almost proverbial to have faith in one's doctor, one's remedies, and one's good luck. And we are not so taken up with the demonstrable that we cannot understand how mental effort may exercise an influence for weal or woe.

In writing an address for such a composite assemblage as may be found on the opening day of the medical session, it is an almost impossible task to please everybody. There is no denying the fact that an oration which sparkles with cheerful, not to say light, thoughts is by common consent that which takes for the nonce; though it is no less true that when perused afterwards, as many addresses are, its intrinsic worth may be not so great as that of one which was less brilliant in delivery. At St. George's Hospital Dr. CHAMPNEYS gave a lecture which for a judicious combination of merry wit and sound sense, certainly could not be surpassed. "He was undecorated, except by the judgment of the highest court of appeal, that of his peers," a sentence used in the eulogy of Mr. CÆSAR HAWKINS, has something in it which recalls the vein of humour one is accustomed to encounter at the Savoy Theatre. Some good advice was administered at the Middlesex Hospital by Dr. FINLAY, who touched upon most of the topics which now interest medical science. Dr. LEES, at St. Mary's Hospital, read an instructive address which commanded much attention; and the meeting at the Westminster Hospital listened to the words of welcome and knowledge which Dr. HUGHES BENNETT uttered. At King's College, the excellent address by the Rev. Dr. WACE abounded with appropriate simile, and was received with acclamation.

THE friends of the Hospital Sunday Fund have much reason to be thankful to Mr. JAMES LANE for raising the one question possible as to the advantage of Hospital Sunday to the great cause of hospital support. Has the establishment of Hospital Sunday had the effect of diminishing the number or amount of personal subscriptions to individual hospitals and dispensaries? It has often been surmised to have this effect; and Mr. LANE, in a happy moment, set about analysing the facts of St. Mary's Hospital, and, as he thought, proving that while it had received from the Fund £600 a year more than it used to get from local church collections, it had lost annually in donations, during the time of the Fund, £1745. Mr. LANE'S letter was the more valuable as written in a tone of moderation, and with obviously no ill-will to the Hospital Sunday Fund. The next day, however, *The Times* published a letter by Mr. BURDETT in answer to Mr. LANE. It was not so much an answer as a very complete and through finishing of that which Mr. LANE had only begun—viz., the analysis of the facts. It is so easy in hospital matters to make round statements and to arrive at hasty conclusions, but it is difficult to go deeply into

facts. Mr. BURDETT, however, comes to close quarters with the facts of the case, and completely pulverises the conclusions at which Mr. LANE had too hastily arrived, by showing that the defection in later years of the subscriptions to St. Mary's had other and ample explanations without any reference to the Hospital Sunday Fund; amongst others, that in the earlier period, prior to the establishment of the Hospital Sunday Fund, an anonymous and generous donor was sending £1000 a year to the hospital, which ceased in 1873. Then during the first decade very strenuous exertions were made by the hospital to raise funds to defray the expenses of new buildings; also that during that period a Hospital Fund dinner was annually held and very actively promoted, so that it yielded an average income of £1280 a year. This source of income has been allowed to dwindle, till now nothing remains of it in the hospital accounts but an average annual expenditure of £86 put down to the festival dinner. Mr. BURDETT completes his destruction of Mr. LANE's statistics by showing that, comparing the subscriptions of the two decades, the falling-off in the latter one is only £31 per annum. Unless Mr. LANE can show that the loss of the munificent annual donation of £1000 was due to Hospital Sunday his discomfiture is complete, and it only remains for him to be thankful that the Hospital Sunday Fund has made the financial position of the hospital better by £600 a year than it would otherwise have been.

The fact seems to be this—that the older and more established hospitals are a little defective in energy and ingenuity. The very establishment of Hospital Sunday may have increased this defect, by making them feel less self-reliant. Their claims are magnificent and unanswerable; but times are bad, and claims of all sorts are multiplying, so that even charitable men readily find excuses for not supporting hospitals. The Hospital Sunday Fund is the best friend of hospitals. It stamps with religious sanctions and considerations the case and the claims of hospitals. We do not mean that the Council has yet achieved what it ought to achieve. It is too self-complacent. It makes one annual effort, and then folds its arms in satisfaction and does nothing more to raise the sunken condition of medical charities for another year. It needs to be roused to much more effort and ingenuity in the use of its great influence. By all means let it be criticised, and that severely. But it is destined to remain an institution to remind rich men of every church and synagogue that their sick brother is in their keeping, that they have to make his bed in his sickness, and that if they fail to do so an ominous and crowning condemnation will be heard—"I was sick, and ye ministered not unto me."

No one—and least of all Dr. KOCH himself—could have imagined that the discovery he declared of the specific choleraic organism would be accepted without challenge. Nor could it be expected that in a matter of such universal interest the public mind should not be awakened by the intelligence of this discovery, and should be keen to follow the arguments and facts adduced against it. We have already spoken of the conclusion arrived at by Dr. LEWIS, and of the detection by Drs. FINKLER and PRIOR of Bonn of the "comma bacillus" in cases of sporadic cholera. This was made a subject for discussion at the Scientific Congress at Magdeburg, when it was stated by Dr. FINKLER that KOCH himself admitted the morphological resemblance between the organisms he found in Asiatic cholera and those found by FINKLER in cholera nostras. It is possible to admit this, as well as Dr. LEWIS's facts, without materially affecting the standpoint assumed by KOCH. Again, we learn by a telegram to *The Times* last Monday that the English Commission is already at work at Bombay, and that Dr. KLEIN, to testify his utter disbelief in the specific nature of the comma bacillus, had swallowed the cultures. Might it not be possible that the ingestion of the bacillus itself does not suffice to induce cholera in a healthy man? The experiment has been made before, quite apart from any question of a bacillus. Does every human being who is exposed to the source of infection take the disease? We can imagine Dr. KOCH reproaching his fellow-scientist with having performed an experiment without fulfilling all the conditions necessary to ensure its success. For KOCH himself is careful to point out that there must be disposing conditions to account for the manner in which the cholera develops; and would be prepared to receive the intimation that the bacillus can be swallowed with impunity without his faith in his discovery being shaken. Then we have the elaborate report of the French Commission, which whilst admitting the presence of the comma bacillus, denies its pathogenic property, and seeks for changes in the blood as the initial cause of cholera—a statement supported by inoculation experiments. That the blood is profoundly altered, and that this alteration is the main cause of death in this disease, few will deny; but Dr. KOCH may well reply that the effects of choleraic poisoning have here been mistaken for causes, and he will not be unsupported in such an assertion. For our own part, we must endeavour to keep an open mind on the question, and leave it to those who are engaged in the actual research to reconcile their differences as best they may. We may, however, venture to express the hope that our English Commission will not rest content with a demonstration of the fallacies of Dr. KOCH, but will search diligently in every direction for a solution of the problem which can explain the facts of the disease in an even more satisfactory manner than he has done.

Annotations.

"Ne quid nimis."

THE OPENING OF THE WINTER SESSION.

ONCE more the cumbrous wheel of medical education has finished its annual revolution, and once again the well known cycle has commenced its usual course. Would that the beginning of the new session had taken place under the auspices of a new Medical Act! But, alas! fate has destined otherwise. Everywhere we see around us the old familiar signs of activity at the schools and hospitals. The faces of first year's men, strange in the new light which has dawned upon them, are to be seen side by side with those of the older students, ready, if not eager, for new work in new departments. The members of the medical and surgical staffs, too, greet one another and the students with kindly looks and genial manner. It is in the first few days of the new session that the mind really appreciates the value of the long vacation. Everything seems for a while to wear a new aspect, though we feel at the same time that there has been no real change.

The teaching at our hospitals and schools is a theme

on which we may say a few words. Our students want more teaching and less coaching. Growth of memory requires repression in favour of development of reason. Clinical work is perhaps the department in which students display most ignorance at the final examinations, and unfortunately a premium is still placed, even in the higher examinations, on mere book work. Clinical knowledge can only be gained by long and patient observation, and two years is too brief a time even when the student is most diligent and gifted. We do wish that students would leave their books and visit the wards. And where the students are, there should the teachers be also. Every school ought to have clinical professors who can afford the time for exposition, and it naturally follows that the junior members of the permanent staff are, on the whole, the most competent for the posts of clinical teachers. What we have urged in connexion with medicine and surgery holds good also of the teaching of chemistry, physiology, and anatomy, with th ir related subjects. Students as a mass do not work half enough at their dissections, their physiological demonstrations, or their histological preparations. Any humble but wise student who happens to have spent his time in the more practical paths of his career cannot help inwardly blessing the influences which led him to see for himself rather than trust to the descriptions of other observers. Such a one may not come off brilliantly at examinations, but he has no cause for despair. Patience and perseverance after, on the same lines as before, qualification cannot fail to raise such a one, whether he stay in town or go into the country or elsewhere, to the highest dignities which his profession is able to confer. He may be patronised for a while by his more brilliant (at examinations) *confrère*, but the time will surely come when the latter will own the former's worth. We have not the least wish to cry down success at examinations. Far from it. Experience has shown that many of the examinationally distinguished are also those who have gained their knowledge from direct observation; but at the same time it cannot be denied that many who have obtained the highest honours at examinations are sometimes failures in later life. In harmony with the preceding thought, we would urge all who can avail themselves of the time and money to spend as long a period as possible in their education over and above that required by the different examining boards. We are not entirely in agreement with those people who believe that the future general practitioner should make haste to rid himself of his hospital ways. There is time enough for this alteration, with the average student, after he has completed his medical studies. After he has obtained his diploma, let him for a time, if possible, continue his clinical studies. Indeed, most of us have heard "men" say that they learn far more real medicine and surgery after being qualified; and the reasons for this plain statement are not far to seek—excessive book work, the result of over-examination, being the main one.

A PREMIUM ON INFANTICIDE.

"A PREMIUM on Infanticide" is the not too sensational heading of a most forcible and faithful letter written by "M.R.C.S. Eng." to the Editor of *The Times*. We have frequently had occasion to deplore the excessive loss of infantile life. Whilst approving for the most part the arguments contained in the letter referred to, we should yet be inclined to take exception to the opinion that infant mortality, so excessive and unnatural, cannot be satisfactorily accounted for. It seems to us that most of the causes of this excessive mortality may be said to be fairly well known to medical men, though probably not fully appreciated by the public. The case which "M.R.C.S." regarded as typical of thousands of other cases throughout the country will undoubtedly find its parallel in the practice of every observant practitioner. The system of insuring infant life may justly be stigmatised as pernicious, as it virtually places a premium on the destruction of infant life. It is true that the "policy" of insurance falls through if the infant perish within a period of three months, but such a limitation is certainly an insufficient and ineffectual protection against crime. Nor do we think that it is always insurance money with tempts to the commission of infanticide. The poor labourer who finds himself burdened with many children feels most acutely the misery which a large family entails. If he be an honest, sober man the difficulties of making both ends meet are well nigh insurmountable; how must it be then if the breadwinner be thriftless and intemperate? Under such circumstances opiates, disguised as "soothing syrup," "carminative," "cordial," and even laudanum itself, find a ready use. Further, the sale of patent medicines is totally unrestricted, and these nostrums are dangerous weapons indeed. Boldly advertised in a reckless fashion as "perfectly harmless," these patent medicines, to all appearances approved and commended by a Government stamp, find an easy sale in large and poisonous quantities. The "accidental" administration of a fatal overdose of the compound relieves the parents of further responsibility and the insurance office of a small portion of its wealth. The difficulty of remedying this state of affairs is unquestionable. An insurance system providing against the natural exigencies of infant life cannot be wholly condemned, and, indeed, with proper precautions may be made to be much more a blessing than a curse. One path at least is clear, and that is the application of severe restrictions to the sale of every patent medicine the composition of which is at all doubtful.

SANITARY CONDITION OF CALCUTTA.

SINCE we last brought to the notice of our readers the very unsatisfactory condition of Calcutta, from a health point of view (THE LANCET, Aug. 23rd), the differences between the Lieutenant-Governor and the municipal corporation have widened and given rise to the necessity for action on the part of the Government. The offer made by Mr. Rivers Thompson to appoint a mixed committee, on which the corporation should be represented by two of its members, for the purpose of drawing up a scheme for the sanitary and structural improvement of the town and suburbs, was rejected by the municipal body as being impossible for them to accept "without an entire loss of self-respect." Mr. Harrison, in his capacity of chairman of the Commissioners, addressed to the Lieutenant-Governor a letter which fills eight columns of the *Englishman*, in which he discusses the grounds upon which the necessity for such a committee was presumed to be founded, and puts forward a claim for the Commissioners that they had done already more than they were required by the Act to do, and that none of their acts furnished legal justification for the appointment of a committee by the Lieutenant-Governor. In a very able letter, from the Secretary to the Government, the various points advanced by Mr. Harrison are considered, and the opinion of the Advocate-General as to the legality of the course followed is given. In consequence of the refusal of the corporation to join in the appointment of a mixed committee, the Lieutenant-Governor, in the exercise of the power vested in him by Section 28 of Act IV. (B.C.) of 1876, appointed a committee consisting of the Sanitary Commissioner of Bengal, a member to be appointed by the Commissioners, and the Hon. H. Beverley of the Bengal Civil Service, who are to report, before Dec. 1st, "Whether they are of opinion that the cleaning and the conservancy of the

town are defective to an extent likely to be prejudicial to the health of the inhabitants of the town, or of any part thereof; and if they shall be of such opinion, shall specify in their report what further provision should be made for the cleaning and conservancy of the town up to the end of the year 1885–86, and shall submit an estimate of the cost of the said further provision." On the publication of this Order thirty-two of the Commissioners resigned their seats at the board. The other Commissioners were anxious that their chairman, Mr. Harrison, should represent them on the committee, but he declined to do so, and after some discussion, it was resolved to ask the Town Council to nominate a member. It cannot but be matter for regret to all who take an interest in the sanitary condition of one of our great Indian cities that the Municipal Commissioners should have persevered in their refusal to take adequate measures for the protection of the population, and especially the poorer members of it who are unable to protect themselves, against the ravages of preventable diseases. We have gone very carefully through the published correspondence, and have come to the conclusion that the Lieutenant-Governor was bound to take action in the matter, that the course he proposed in the first instance was one which ought to have met with support from all who were entrusted with the superintendence of the health concerns of the city, and that the duty of putting in force the provisions of the Act was forced upon him by the refusal of the Commissioners to make adequate and suitable provision for the cleansing and conservancy of the town. We trust that the result may be the preparation by the Committee of such a scheme as may meet with the support of all classes and prove effectual in reducing the amount of sickness and mortality among the population of the city and its suburbs. That great and immediate improvement is necessary must be admitted if the description by the health officer be correct of the water-supplies in some of the localities in Calcutta, that they are "twice as bad as London sewage," or if it be true, as stated in an official document, that the inhabitants in some of the plague spots in the city "live their lives in the midst of filth, sleep on filth, bathe in filth, drink filth, cook in filth, and wash their clothes in filth."

MODERN MUMMIES.

A SUBJECT which has important bearings on the vexed question of cremation was broached at the recent meeting of the Social Science Congress, in a paper by Mr. Thomas Bayley of Birmingham. In spite of much that has been said and written to the contrary, the practice of burning the dead must, in our opinion, and as we have stated elsewhere, lack the sanction of law so long as it does not afford a further guarantee than that required in cases of burial that death has not resulted from foul play. The paper alluded to recognises this difficulty, and proposes a plan by which it may be met. It is the following. The bodies loosely but completely enveloped in cotton-wool, and placed within air-tight cases, are exposed, in a subterranean gallery lined with cement, to the action of cold air, which is chemically dried, and purified by filtration from putrefactive bacteria. After a time dry air at a higher temperature is used in the same way. The result is mummification, the integument remaining white. Bodies which have undergone this process may, it seems, be kept for an indefinite period without evidence of change, if protected from damp; may, if required, be submitted to examination by analysis or otherwise in an adjoining cool and dry mortuary chamber; may be cremated or otherwise disposed of. Mr. Bayley's plan has considerable merit on the ground of its philosophical ingenuity. We are not informed whether its efficiency has been practically tested. If experiment should prove that it is a trustworthy safeguard, one solution of the judicial difficulty has certainly been found. At the same time, we cannot but think that the advocates of cremation would find the addition of a complex preliminary process of mummification a hindrance rather than a help to the working of their own system.

PERIODICAL CHANGE OF COLOUR OF HAIR.

A YOUNG girl, aged thirteen, of an idiotic type, was admitted into the asylum at Hamburg on April 1st, 1880, and died there in 1882. At the age of three years she began to be affected with spontaneous movements like those of St. Vitus' dance, which were chiefly confined to the head and upper limbs. Between her fifth and sixth year she had become the subject of well-marked epilepsy. She was able when four years old to run round a table, but her powers of progression steadily diminished and the lower limbs passed into a condition of chronic stiffness. When in the asylum of Dalldorf (Hamburg) she had epileptic fits about every eight or fourteen days; besides, it was observed that she experienced alternations of agitation and calmness, each of about a week's duration. In the period of agitation the turgescence and redness of the face were most pronounced, the pulse was full, the skin warm, and actively transpiring, at the same time that the mental condition was one of extreme obstinacy. Further, it was often remarked that the colour of the hair underwent decided changes; sometimes it was blond and at others red, whilst the depth of these colours also varied. The alterations in colour occurred in the brief space of two or three days; the first appearance of change was observed at the free ends of the hairs; the same tint of hair persisted for seven or eight days. Each of these periods of change of colour of hair coincided with a phase of agitation or sedateness. During the state of excitement the hair always had a red colour, whilst pending the phases of stupidity the blond tint prevailed. The case appeared to be one of genuine pathological change. The paler hairs differed from the darker ones only in the presence of more numerous air spaces. The structure of the brain and spinal cord was much altered.

HONORARY HOSPITAL SURGEONS IN BOMBAY.

THE appointment of unpaid or honorary surgeons to the Goculdas Tejpál Hospital in Bombay, to which we called attention in THE LANCET of November 2nd, has proved a complete failure. In January last the Surgeon-General with the Government of Bombay called upon Surgeon-Major Hojel, the medical officer in charge of the hospital, for "a full report of the working of the system of supplementing the hospital staff by unpaid or honorary surgeons," which had been under trial for upwards of eighteen months. Surgeon-Major Hojel reported very unfavourably, his chief complaint being of great irregularity in the hours of attendance of the honorary surgeons, "who come and go as they like, and as a consequence the work is performed very perfunctorily." His remonstrances on this subject, as responsible head of the hospital, made both verbally and in writing, were unheeded, and he was in consequence obliged to "take the house surgeon from his legitimate work in the hospital and send him to prescribe for the out-patients," who were waiting for the arrival of the honorary surgeon. As regarded two of these gentlemen, Surgeon-Major Boustead fully confirmed this report of irregularity in attendance; the third was on leave during the time he was in charge. These reports having been brought by the Surgeon-General under the consideration of His Excellency the Governor, he was pleased to direct that Mr. Blaney and Mr. Peslkáka should be reappointed for a further term of six months. The Surgeon-General was directed to inform

these gentlemen that although their services are gratuitous, it is not the less necessary that they be rendered under rule and with scrupulous observance of punctuality; and the surgeon in charge of the hospital was to be requested "to fix the hours of attendance of the honorary assistant-surgeons, and to report if they are not observed." Mr. Khamkáta, who had been reported as the most unpunctual of the three, was not reappointed. We understand that the two gentlemen who were reappointed have since resigned. There has been much violent abuse of Mr. Hojel in the local press for the unfavourable report he made on the subject; but we fail to see how he could have done otherwise when called upon by the head of his department to state his opinion and the grounds on which it was formed. The Government of Bombay was evidently satisfied with the manner in which he discharged this disagreeable duty, as they refused him permission to take legal proceedings against any of the papers which had maligned him. We trust that it will now take the necessary steps to appoint an adequate and efficient paid staff to this hospital. In the interests alike of the profession and the patients we desire to see the surgical appointments filled by men of superior qualifications, who will devote their best energies to the treatment of the poor entrusted to their care, and will give to their professional brethren the results of the observations which they may be enabled to make in such a wide field as that afforded by the practice of the Goculdas Tejpál Hospital.

THE DIAGNOSIS OF GASTRIC DISEASE.

WE have frequently called attention to a prolonged investigation, which is still in progress, on the mensuration of organic nutrition, especially in relation to diseases of the stomach, by M. Rommelaere. This chemist and physician has come to definite conclusions concerning the amounts of urea, chlorides, and phosphates discharged by the urine in cases of gastric disease, conclusions which warrant, in his opinion, the diagnosis of this or that affection of the organ in question. His latest contribution deals with the discharge of phosphates in the urine in cases of simple ulcer of the stomach. In this affection, when healing, he finds that the "azoturia" is rather more than usual, which excludes the diagnosis of cancer; the "chloruria" is normal, and so is the "phosphaturia." It will be remembered that Dujardin-Beaumetz and others have not confirmed Rommelaere's results concerning the amount of the discharge of urea in cancer of the stomach. Dealing with the discharge of phosphates in the urine, the author believes that there are two varieties of hypo-phosphaturia—one due to inefficient alimentation; the other consequent on the retention of phosphates in the economy. The first variety has not much significance from the point of view of diagnosis. When hypo-phosphaturia is lasting, the prognosis of the case of gastric disease is very grave. The clinical importance of hypo-phosphaturia is only of value in cases where the patient is not starved by the seat of the gastric lesion. In pyloric obstruction there is hypo-phosphaturia from inanition. The form of diminution of phosphates not due to inanition is of much clinical importance. When it occurs in the course of an ulcer of the stomach, it heralds the termination of the period of phagedæna. When the ulcer is about to heal there is hypo-phosphaturia with increased and increasing discharge of chlorides in the urine. When the work of cicatrisation is proceeding regularly the "chloruria" rapidly returns to the normal, and the phosphaturia also, but more slowly. Hypo-chloruria denotes advancing ulceration; hypo-phosphaturia indicates the reparative tendency. In the progress of ulcer of the stomach there is, then, a correlation between the chloruria and the phosphaturia. The chloruria sinks to a low level in cases of imminent suppuration; it rises when suppuration is established, and approaches the normal notwithstanding the persistence of suppuration. Phosphaturia is increased in cases of commencing suppuration, is lowered as soon as reparation begins, and returns to the normal in cases which heal properly. The retention of phosphates, leading to hypo-phosphaturia, characterises a favourable condition of the system, tending to heal the ulcer.

THE ETIOLOGY OF SCARLET FEVER.

IN his last annual report on the health of the borough of Maidstone, Mr. M. A. Adams, the medical officer of health, draws attention to an outbreak of scarlet fever, attacking thirty individuals and causing two deaths, which was clearly due to the consumption of a special milk-supply, but in which it was impossible to connect the milk with any infection of scarlet fever. The outbreak, like others of the same description, was a mild one; and Mr. Adams, having conferred with Mr. Power, of the Local Government Board, on the subject, refers to the views which have been expressed by the latter observer, which are to the effect that a disorder is liable to occur in cows which is able to affect the milk yielded by them so as to produce a disease in persons consuming the milk of the nature of and indistinguishable from ordinary scarlet fever. In this case nothing is stated as to the health of the cows, and we have no facts bearing upon the view in question, except the one showing that the source of scarlet fever infection was not detected. There have, however, been a certain number of scarlet fever outbreaks in connexion with the use of a particular milk which have baffled all who have sought to detect any source of infection coming from a previous case of scarlet fever, and all the outbreaks have certain characteristics in common, such as small mortality. Much more experience is needed before any decided opinion can be expressed on the subject; but, in the meantime, the Maidstone case, investigated as it has been by two skilled observers, may be added to the list of those outbreaks which have some bearing on the question of the transmissibility of disease from the lower animals to the human subject.

LONDON CABS.

IT is no less unaccountable than it is disgraceful that this great city, whose vast population is ever on the move in pursuit of business or pleasure, should still be unprovided with a decent four-wheeled public carriage. The name of the inventor of the hansom cab will probably live when far greater men are forgotten; it is fortunate for the designer of the "four-wheeler" that his is not known, or it, too, might go down to posterity—but with the reverse of blessings. The improvement in the hansom has of late years been notable, and there is now little to be desired with regard to this very convenient cab, which, however, is in our opinion mainly adapted for use in the warmer months, and is not suited to the requirements of all. The chief objection to the ordinary hansom lies in its imperfections as a closed carriage. The front window, when shut, generally either fits too loosely, and so admits the rain, or by fitting too tightly excludes the air. Even when some attempt at ventilation is made in it, the space in which the "fare" (or worse, "fares") sits is so limited as to cause an unpleasant "stuffiness"; while to a timid person the situation must be trying, and certainly the prospect of the possibility of a collision or an upset while thus "cabined, cribbed, and confined" is far from pleasant. In wet weather, too, the cushions of the seats are very liable to become damp. We are aware that one or two faint-hearted attempts have been made to provide London with improved four-wheeled hackney carriages, but nothing has ever come of them. Why it is difficult to say. The large provincial towns and popular sea-side resorts are not satisfied with such

ramshackle accommodation. London alone seems content. There is no doubt that a comfortable four-wheeled cab would be appreciated and employed by many to whom a closed carriage is a consideration in fine cold as well as in wet weather. It would certainly soon supersede the present objectionable "growler" and be patronised by many who now use the hansom. Mr. Forder and others have achieved great things for the comfort of the public by improving the hansom. It is high time they turned their attention to the "four-wheeler."

KNEE-JERK IN DIABETES.

THE introduction of one new condition into any existing arrangement cannot take place without producing more than one alteration. The phenomenon of the knee-jerk which may practically be said to have been introduced into the sphere of clinical medicine during the past decade bears testimony to the above generalisation. The investigation of the condition of the knee-jerk may seem to some medical men a somewhat novel application of a reflex action. M. Bouchard made a distinct impression by his paper on the subject at the French Association for the Advancement of Science recently held at Blois. The presence or absence of the knee phenomenon in diabetes mellitus is said to possess much importance both from a prognostic and diagnostic point of view. Forty-seven cases observed during the last three years by M. Bouchard were found to have the patellar-tendon reflex, and of these cases only two died, or about 4 per cent. Nineteen cases were collected in which the knee-jerk was absent, and of these six were fatal, or about 33 per cent.; the mortality in the latter group may have been still greater, since some of the number were lost sight of. The members of the second category also had a cachectic aspect. M. Bouchard believes that the disappearance of the knee phenomenon in the course of diabetes indicates the entry into a grave and perilous state. It is perhaps lending too much value to the knee-jerk to say that the absence of it has given the cue to the diagnosis of diabetic coma; a statement to this effect may be found in the report from which we abstract our information on M. Bouchard's paper. An infant was found comatose with dry cracked lips and absolutely afebrile; none of its antecedents could be ascertained. The knee-jerk was absent and the coma resembled that met with in cases of intoxication, and of uræmic or diabetic toxæmia. There was the odour of acetone in the breath; some balano-posthitis and intense thirst. A washing from the child's underlinen reduced Fehling's solution. M. Bouchard thinks it necessary to state that the absence of the "tendon reflex" does not favour the nervous theory of diabetes.

CREMATION AT ILFORD.

AT a late meeting of the Commissioners of Sewers for the City of London at the Guildhall, an interesting discussion took place on the benefit or otherwise to be derived from the practice of cremation, and on the need of erecting a crematorium in Ilford Cemetery. On the part of the Sanitary Committee, it was proposed that the latter project be postponed until the whole subject had received Parliamentary sanction and regulation. An amendment to this motion advised that the Committee be asked to reconsider their proposal. After an animated debate the amendment was carried by twenty-six votes to sixteen. The supporters of the amendment based their action on the following considerations. That cremation afforded the most perfect sanitary method of disposing of the dead, that it did not offend religious principle, that it need not imply illegality, and that radical change was called for in the present system of burial. They further asserted that all science was on their side, and that since the law was not compromised regulation by Government was uncalled for. By the other party the practice was condemned as barbarous, too costly for general adoption, and unnecessary, inasmuch as it had not been asked for on behalf of any inhabitant who had recently died in London, while experience had proved that the earth in every quarter of the globe was still much more than able to perform in a satisfactory manner the ultimate object of the crematorium, which was therefore a superfluity, as it was on several grounds a public nuisance. The strongest points in the case brought forward by the cremationists are the unquestionable statement that burial reform is necessary, and the moderation of their request that the opportunity of burning their dead may be afforded to such of the public as may desire it. It cannot of course be expected that the older custom of interment should ever be completely superseded by the method of immediate combustion, and it seems very doubtful whether the comparative value of the latter can ever be so clearly proved as even to lessen materially the proportion of earth burials. The practical utility of cremation therefore is not very evident. Another statement which was made on its behalf at the recent meeting should not pass unchallenged—namely, that it had the support of all science. No party argument was ever more unfounded. It is true that decomposition in the earth is a slower process, and that it has not in all cases been successfully carried out; yet it must not be forgotten that its failures have been due entirely to the meddling mismanagement of human sentiment which buries the dead to preserve them in a putrid state, or to careless misplacement, or overcrowding of cemeteries, for which there is not even a sentimental excuse. Let the earth have its dead, and be allowed to do its work on them, and the process of decomposition of man, as of innumerable lower animals, will be, though gradual, completely successful, and wholesome to the earth itself, its atmosphere, its vegetable life, and to the inhabitants which people its surface. The highest point to which cremation can hope to attain in the national economy is, in our opinion, that of a permitted practice, but before this can happen a special guarantee is required that it may not be used to destroy the evidence of murder by poison.

SUCCESSFUL RESECTION OF THE HEAD OF THE HUMERUS FOR ANKYLOSIS.

PROFESSOR ALBANESE reports in the *Archivio di Ortopedia* for April an operation for ankylosis of the shoulder, performed in the surgical clinique of Palermo, in the presence of Professor Tommasi-Crudeli. The patient, Maria B——, aged twenty-one, had during the preceding twelve months suffered pain in the right shoulder-joint, which gradually became immovable. The appearance on admission, as shown in an accompanying illustration, suggested downward dislocation of the head of the humerus. The acromion was prominent and the deltoid flattened. The patient could not touch her head with the right hand, and the corresponding olecranon could not be brought nearer than eight inches from the chest wall. The patient being under chloroform, Professor Albanese made an L-shaped incision, three inches and a half in extent, along the spine of the right scapula into the shoulder-joint. The sides of the wound being held open with strong hooks, the head of the humerus was severed by two blows with the chisel on a level with the anatomical neck. The surgical neck, dislocated outwards, was rounded off with gouge and file, so as to fit in a hollow made with a spoon, in the head of the humerus, which was adherent in the glenoid cavity. A drainage-tube was introduced, and the wound closed with interrupted sutures. An antiseptic dressing was applied according to Listerian precepts. Recovery was rapid. The temperature remained normal throughout, the wound was

healed within a fortnight, and the patient discharged at the end of a month, with perfect symmetry of the two shoulders. Two months after the operation the patient could bring the elbow to the side, move the arm in all directions, and dress her own hair.

SUICIDE FROM INSANITY.

THERE have been many suicides of late in which no sort of doubt can exist as to the insanity of the self-murderers. In the majority of these lamentable cases there has been neglect on the part of friends, or there has been procrastination as to the adoption of measures of safety. The real cause of this evil is the obstacle which the law throws in the way of prompt treatment by confounding matters which are totally distinct—namely, medical care and legal disfranchisement. There will always be delay and reluctance both on the part of friends and patients hovering on the borderland between mental health and insanity so long as certifying precedes treatment. What the emergency demands and requires is perfect freedom as to treatment; the privilege which is now stoutly denied to the subject of conscious mind worry and weakness of placing himself or herself voluntarily under treatment, as a sick man seeks rest and medical care for his bodily ailments in a hospital, public or private. Why should this obvious recourse be closed against the subject of mental disorder or disease? We have no hesitation in asserting that in nine instances out of ten the patient is self-conscious of the malady before it becomes apparent to those around him. On this point we are absolutely certain, and it would not be difficult to prove this position by facts. If asylums were *hospitals*, and nothing more, there would be comparatively few suicides, and the proportion of admissions to recoveries would be sensibly reduced.

PROGRESSIVE MORTALITY OF MEASLES IN PARIS.

THE first article in the *Archives Générales de Médecine* for this month is one of exceptional interest to sanitarians. Its author is Professor Auguste Ollivier, physician to the Hospital for Sick Children in Paris, and his observations are embodied in a report to the Prefect of Police, who is *ex officio* president of the Council of Public Hygiene for the department of the Seine. Without attempting a literal translation of the article, its salient facts and conclusions may be thus summarised. That measles is a necessary and not serious eruptive fever is a popular fallacy. Of 57,024 deaths which occurred in Paris in 1883, 1058 were due to measles, equivalent to 18·55 per 1000, or nearly 2 per cent. In the same year measles came immediately after diphtheria (1951 deaths), amongst diseases universally admitted to be contagious. Whereas diphtheria is nearly equally fatal at all ages, the gravity of measles decreases as years advance. In 1000 deaths from measles, only 8·57 were in persons above fifteen years of age; below that, the number was no less than 991·43. Hence the practical precept, to protect infants from one of the most serious diseases which can attack them. The longer the attack can be deferred, so much less will be its seriousness. Of late years the ravages of measles in Paris have been steadily on the increase. In 1865 it was the cause of 343 deaths, in 1869 of 540, in 1873 of 561, in 1879 of 917, and in 1883 of 1058. This regular gradation might be supposed to be attributable to a corresponding increase of population, but it is not so. Reckoning the proportion of deaths from measles in 100,000 inhabitants, it is proved that in 1865 that ratio was 18·8, whereas in 1883 it was 47·1. Consequently the present mortality from measles in the French capital is nearly three times as great as it was twenty years ago. A single word suffices to explain the nature and the spread of the disease: contagion. Infant nurseries (*crèches*), schools, dispensaries, and the out-patient departments of hospitals, are the great centres for the propagation and diffusion of the disease. The increase in the number of cases of measles in Paris admits of explanation by the growth of the scholastic and hospital population, and by the insufficiency of means for isolation. The medical inspection of all schools is a matter of the first importance, so that the earliest symptoms of the affection may be detected at once. In hospitals for sick children, applicants for relief should be inspected in a reception hall by a specially appointed medical officer, by whom cases may be at once classified, and those presumably contagious isolated immediately and effectively.

CHOLERA IN INDIA.

THE epidemic wave of cholera which swept down from Bengal and invaded the Madras Presidency in 1881 has lingered somewhat longer than usual, but is now showing signs of dying out. The rich Collectorate of Tanjore has suffered very severely, and its persistence in this territory led the Government lately to send down their sanitary commissioner to investigate the causes of its continuance. Dr. Furnell is of opinion that the severity and persistence of cholera in Tanjore are owing to the peculiar water-supply of the district, which is faulty in the extreme. The people of even the large towns, and it is invariably so in the villages, are dependent upon tanks for their drinking water. These tanks are defiled in every conceivable manner. People wash their bodies, clothes, and even the clothes taken from people who have died of cholera, in the water, and take home the fluid thus defiled to cook and use for drinking purposes. The sanitary commissioner has recommended that wells should be sunk in all villages, and looked upon as Government wells, rigorously watched and kept from defilement. Then the people should not only be taught, but compelled, to obtain their drinking water from these wells, using the tanks only as bathing and washing places. He points out that where this has been done, notably in Guntur, cholera epidemics, once so frequent, have entirely ceased. These views, which have for some years past been strenuously advocated by the Madras Sanitary Commissioner, are in accordance with Dr. Koch's recent discoveries.

MYSTERIOUS DEATHS AT LAMBETH.

ON Monday, Sept. 22nd, John Warren, a labourer, aged fifty-five, and Martha Warren, his sister, aged sixty-four, were found dead at Webber-street, Waterloo-road. The body of the former was discovered in the sitting position in the watercloset, the door of which was fastened on the inner side by a piece of string. That of the woman was dressed, lying on its back in the bedroom. There was nothing in the external appearances to indicate with certainty how death had occurred in either case, but from the advanced state of decomposition it was clear that the woman had been dead for some time. At the inquest it was shown that although Warren and his sister were impecunious, both food and money were found in the house, a fact which seems to negative the supposition that they had succumbed to starvation. The surgeon who had instructions to conduct a post-mortem examination did not carry them out because he "felt himself too old to perform it." He gave it as his opinion that the oozing of blood from the mouth of the woman was due to apoplexy, to which he ascribed the death, and that from the hands of the man being open he thought he had died from syncope. Upon this evidence the coroner put it to the jury whether they thought it advisable for a post-mortem examination to be held. They considered it was not, and accordingly returned a verdict

of "Death from natural causes." The finding of the jury was "in accordance with the medical evidence"; still for all that, we unhesitatingly affirm that it was not only advisable, but necessary, that a searching investigation should be made. Here were the bodies of two adults who had evidently died at or about the same time, a coincidence strange in itself; there was no proof that either had met with any violence, or suffered from disease likely to be suddenly fatal. The interpretation of the facts made by the medical man may or may not have been correct, but to our minds the oozing of blood from the mouth was far more likely to have been the result of cadaveric putrefaction than of apoplectic effusion. Again, even had the man died from syncope, the question still remains, What was the cause of the syncope? Our experience leads us to the conclusion that the position of the hands is of little value in itself. The absence of the smell of alcohol or other poison is negative testimony of very small moment, seeing that death had taken place some considerable time prior to the finding of the bodies. If such cases as the one just related are allowed to pass into the category of "death's mysteries" without a reasonable examination into the circumstances, crime will not diminish for lack of encouragement.

ACTION TO RECOVER MEDICAL CHARGES AT POOLE.

The Bournemouth Visitors' Directory contains the report of an action by Mr. Herbert A. Lawton, of Poole, to recover £21 from Mr. Henry Mitchelson, bank clerk, of London, for attendance on Mrs. Mitchelson for seven months. The case was one of renal disease, with affection and ultimate loss of vision, which all medical men know too well to be not uncommon. The husband of the patient on two occasions, about Christmas and Easter respectively, expressed himself completely satisfied with the treatment. In fact all seemed satisfactory till the bill was sent in. Thereafter dissatisfaction was expressed not only with the bill but with the treatment. All sorts of charges were made against the medical man for which no kind of justification could be made out. The judge was assisted by Mr. Wyke-Smith, acting as an assessor. He repeatedly advised the defendant—whose case was conducted by the patient herself in the unavoidable absence of the solicitor, who, by the way, was severely reflected on by the judge, for writing such letters as he had done to the plaintiff—to withdraw the accusations against the doctor and accept the account. The reasonableness of the charges, amounting to about 3*s.* 6*d.* a visit, was, he said, incontestable. But the lady would not take the advice kindly and repeatedly proffered to her, and the judge gave a verdict for £21 and costs.

CRÈCHES AND EPIDEMICS IN FRANCE.

As disinfection in cases of contagious fevers &c. is not enforced in France, it is not surprising that institutions such as a crèche are accused of spreading disease. Undoubtedly epidemics have broken out in crèches, but it is a question whether the children would not have been exposed to greater dangers if left at home. Nevertheless a certain amount of feeling against the crèche, as an institution, has been manifested on the other side of the Channel, and in self-defence the Société Française des Crèches commissioned Dr. René Blache to seize the earliest opportunity of pleading in favour of the institutions it is their mission to promote. Dr. René Blache consequently delivered a lengthy statement on the subject before the International Congress of Hygiene, pointing out that the crèche only took the children during work hours. Twice a day the mothers should come to feed their children; but, unfortunately, they did not always observe this rule. In certain trades, indeed, this was almost impossible, and it was therefore necessary to give the children a mixed diet, and the result was consequently unsatisfactory. The epidemic question had been discussed at Amsterdam, and in many great centres. A special report was drawn up on the subject for the Paris prefect of police, and several crèches had to be closed in consequence of diphtheria. But Dr. René Blache contended that wherever children congregated together there was danger of contagion. A crowded street was more dangerous than a crèche, for in the latter institution the strictest watch was kept, and the first slightly suspicious symptom sufficed to ensure the exclusion of the child. An epidemic generally came from the street to the crèche, and its spread was stopped by the closing of the institution. The crèche was a moral school as well as a school of health: it taught the mothers that it was their duty to nurse their children, and helped them to obtain indulgences and facilities from their employers. The crèche also combated the ignorant superstitions with respect to the nursing of children and taught the gospel of cleanliness, thus reducing the probabilities of epidemics. In a word, so long as mothers are obliged to work and abandon their children during the day, the crèche is a good institution. But the question arises whether the existence of a crèche does not encourage mothers to abandon their domestic duties and seek for employment. This must of necessity tend to flood the labour market, and reduce the wages of the men as well as of the women who were previously at work. With a reduction of wages come a lowering of diet and the overcrowding of tenements, followed by a general falling off in the health of the majority—that is, of the industrial population.

"A GIGANTIC CESSPOOL."

SUCH is the very startling description of Windermere Lake given by Lieut.-Colonel Sandys. In answer, it is not denied that sewage enters the lake, but it is pointed out that its effects are unappreciable, as the greater portion is passed through tanks which retain the solid matter. It is stated that 150,000,000 gallons of water pass through the lake daily, and that Windermere virtually renews itself once in eight months. Lieut.-Colonel Sandys, who is said to be the owner of a neighbouring lake, has been requested to justify in writing his charges. Mr. S. J. Smith, the Local Government Board inspector, met a number of residents at Bowness on Tuesday, and strong representations were made to him by those who deny the statement concerning the lake. After the interview the inspector visited Windermere, and will, it is understood, report to the Local Government Board on the subject. The allegation is a serious one, and demands prompt investigation.

MOSQUITOES AND YELLOW FEVER.

THE following propositions, which give in a condensed form the chief conclusions of Dr. Carlos Finlay's work on Yellow Fever, deserve consideration. Ordinary yellow fever is inoculable by means of the bite of the mosquito (Culex mosquito) on the third, fourth, fifth, and sixth days of its natural evolution. The disease cannot be transmitted by the agency of the insect before the third day or after the sixth, no matter what the severity of the disease. The period of inoculation of this experimental inoculation varies as widely as that of natural yellow fever. The duration and severity of the fever produced by inoculation by the mosquito appeared to be proportional to the number of the bites, and presumably to the quantity of matter contained in the insect's fang. The inoculation with one or two bites of the insect has never been followed by phenomena other than those usually met with in benign yellow fever. The results obtained up to the present lend hope to the suggestion that the inoculation

by means of one or two *piqûres* of the mosquito may confer immunity from the severe forms of the disease to those who have to dwell in its midst. The inoculability of the disease by the agency above indicated points to the value of guarding patients suffering from yellow fever against the bites of mosquitoes in order to prevent the spread of the malady.

AN IMPUDENT DEFENCE OF CANNIBALISM.

THE *Catholic Times and Catholic Opinion*, in an extenuating notice of the act of the captain and sailors of the *Mignonette* in killing the boy to keep themselves alive, uses a strange argument, which we call upon our contemporary either to withdraw or to justify. He alleges with much assurance that doctors administer drugs to persons dying of painful diseases, which will not only allay pain but will "also surely hasten death." We deny this. Pain such as he contemplates is a deadly thing. There are, mercifully, remedies which relieve such pain. But the effect of such remedies is rather to prolong than to shorten life by destroying the pain which kills—and kills cruelly. Our contemporary must find some better argument on which to base a justification of two or three men killing a weak boy. We are quite prepared to recognise extenuating circumstances; but it will be a bad day for the reputation of British sailors if such acts only excite ingenious and false arguments in defence. Life at sea—the life of the young and the weak—needs to be regarded with exceptional sacredness.

THE IMPORTATION OF RAGS.

THE orders of the Local Government Board prohibiting, except under certain conditions, the importation of rags from France and Italy until Oct. 1st, have been further extended for the period of one month, and Spain has been added to the list. It seems rather a feeble proceeding to issue these orders for so short a period, and one which certainly tends to induce shippers to hold their freights in the hope of a free entry. In this sense it is unfair to them, and likely to cause the very mischief it seeks to avoid. The only exception is where the sanitary authority or their medical officer is satisfied that the rags have been shipped from some part of the country where no case of cholera has occurred. Inasmuch as rags are collected in very small quantities over large tracts of territory, it seems very difficult to understand how anyone can be satisfied as to the place of collection unless a responsible certificate accompany every piece of rag, and we trust that medical officers will seriously consider the possibility of admitting infected material into the country.

POLICE SURGEONS' FEES.

WHILST hearing a charge of assault at the West Ham Police-court on September 21st, the magistrate, Mr. Phillips, made an important announcement as regards the payment of fees charged for attendance by the district surgeon. It appears that attached to the charge sheet was what a court official described as "just a form" provided by the Police Commissioners, but without any statement or certificate from the surgeon as to the nature of the case he was called to see. The magistrate intimated that in future he should disallow the fee unless there was evidence that the doctor had done something to earn it. We cannot justly complain of this innovation, because it is only fair to the accused that the surgeon should either attend the court and testify to his observations and opinion, or record the same in writing. Moreover, we hold that if a person is suffering from the effects of an injury of such gravity as to require medical aid, the administration of justice demands all the assistance that skilled professional knowledge can afford.

PLEASURE STEAM YACHTING IN THE MEDITERRANEAN.

MORE than one medical correspondent has sent us circulars from which it appears that the Pleasure Steam Yacht Company offers "the usual fee of five guineas" to medical men on fares taken through their recommendation. This offer seems discreditable to the Company, and is certainly not respectful to the medical profession. Medical men are supposed to be paid for their advice by those who consult them. That they should be paid by a commercial company for advice profitable to the company would not increase the respect of the public or of their patients. We trust we shall hear no more of such a system of touting. We have, of course, nothing to say against such a pleasant adventure as an escape from our winter climate in a large well-found pleasure yacht, with a duly qualified medical man on board.

COCAIN AS A LOCAL ANÆSTHETIC.

DR. BEER of Vienna has favoured us with a communication from which we extract the following note:—Quite recently Dr. Koller, of the Vienna General Hospital, has discovered in cocain a valuable agent for the production of local anæsthesia. He found that the introduction of from one to three drops of a 2 per cent. watery solution of cocain into the corneal chamber rendered both the conjunctiva and cornea completely insensitive, so that, for instance, the cornea could be partially gouged without exciting any reflex action or sense of pain. The same fact was demonstrated by Drs. Brettauer and Becker at the recent Ophthalmological Congress. Koller in his first report mentioned the employment of the same agent in the production of anæsthesia of the larynx.

THE HOSPITAL FETE.

ON Wednesday the Lord Mayor received the following letter from the Duke of Buckingham and Chandos:—

"International Health Exhibition,
South Kensington, S.W., Sept. 20th.

"MY DEAR LORD MAYOR,—I am glad to be able to remit a further sum of £500 arising from the Hospital Fête. It is possible that a further small amount may still be found for the Hospital Sunday Fund after the final expenses have been paid.—Yours very truly, BUCKINGHAM AND CHANDOS, Chairman, Executive Council."

A meeting of the Council of the Fund is, we understand, fixed for the 10th inst., to distribute the money received from the fête.

ACETONURIA AFTER POISONING BY SULPHURIC ACID.

ACCORDING to the *Birmingham Medical Review*, Hoppe-Seyler has recently described a case of poisoning with concentrated sulphuric acid, in which, six days after the accident, an acetone-forming substance appeared in the urine, which smelt of acetone and gave a red colour with ferric chloride. The excretion of this chemical body lasted in diminishing quantities for four days, during which the patient took scarcely any food. The substance disappeared from the urine after the ingestion of food by the stomach.

THE BOARDING OUT OF PAUPER CHILDREN.

THE Holborn guardians have almost unanimously resolved to call back the children they had put out to board. The resolution was consequent on a discussion raised by the clerk's report of the state of one of the children who had been sent back in a very dirty and neglected condition. The Rev. N. Dawes, on whose resolution the children had been sent, seconded the motion. It is not remarkable that the

guardians should have felt something like indignation at this case, nor that they should have acted as they did. But it would have been more satisfactory to have had a complete report of the state of all the other children boarded out. Everything in the boarding-out system depends on the faithfulness of those who undertake to watch the children; and in this case they seem to have neglected their duty. The case only came to light accidentally, as the child proved unmanageable by its foster parents and had to be sent back. The Holborn Union guardians have spent large sums on their schools at Mitcham, where the children are taught trades, and so are more averse to the boarding-out system.

THE report of the examination made by Colonel Sir Francis Bolton of the water supplied by the several metropolitan water companies during the month of August, states that the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies again exhibited the comparatively small proportion of organic matter which has characterised the samples collected since April last. With the exception of the Lambeth Company's water, which was slightly turbid, all the samples were clear and bright. The water drawn from the Lea was of the same quality as in the previous month, and contained less organic matter than any of the Thames waters.

MR. WILLIAM BATES, B.A., M.R.C.S., Classical Professor at Queen's College, Birmingham, and Surgeon to the Borough Hospital, died somewhat suddenly a few days since. Mr. Bates' literary attainments were well known, and his loss will be greatly felt in other circles than the medical, in which he was held in high esteem.

DURING October Mr. Watson Cheyne will give three special demonstrations on Bacteria at the Biological Laboratory, Health Exhibition. On Tuesday, Oct. 7th, at 4 P.M.: "Methods of Preparing and Sterilising Cultivating Media." Tuesday, Oct. 14th, at 4 P.M.: "Methods of Cultivating Bacteria." Tuesday, Oct. 21st, at 3.30 P.M.: "Methods of Demonstrating Bacteria (Staining &c.)."

DR. EDWARD T. WILSON has issued a card entitled "Disinfectants, and How to Use Them," which is calculated to be extremely useful, especially to householders and managers of public institutions. A large amount of information is compressed into a small space, and is arranged in a form convenient for ready reference.

MR. FREDERICK TREVES, F.R.C.S., has been elected surgeon to the London Hospital, in the place of Mr. James Adams, who has resigned on account of continued ill-health.

SMALL-POX in a virulent form is stated to have broken out at Trieste.

PLUMBING.—On the 26th ult., a representative meeting of gentlemen interested in the art and trade of plumbing was held at the Guildhall, to consider the desirability of action being taken by which the status of the trade might be advanced, and the interest of the the public protected from evil arising from bad work and bad workmen. Resolutions were passed requesting the Plumbers' Company to communicate with the National Health Society, the Sanitary Institute, and otherwise to arrange for the conference of metropolitan and provincial plumbers to be held at the Health Exhibition from Oct. 15th to 20th.

THE

BIOLOGICAL LABORATORY AT THE HEALTH EXHIBITION.

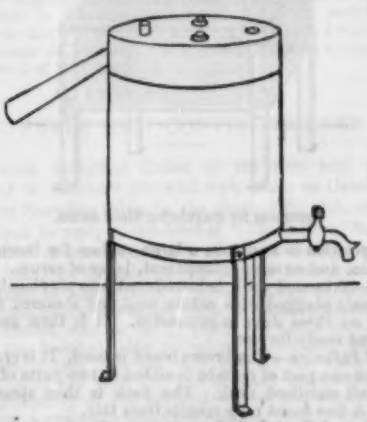
No. V.

CULTIVATING MEDIA.

Potatoes are very good material for the cultivation of many forms of bacteria. In preparing them they are first thoroughly scrubbed with a nail brush, removing the dirt, but leaving the skin whole. They are then soaked for ten minutes in a solution of corrosive sublimate (corrosive sublimate 1 part, water 1000 parts), and after this they are steamed for half an hour. When cool they are cut in half with a knife heated in a flame, and the halves laid with the cut surface upwards in one of the dishes above described. The dish has been previously sterilised by being rinsed out first with the corrosive sublimate solution, and then with methylated spirit. Round the interior of the dish blotting-paper soaked in corrosive sublimate solution is arranged, and this maintains a moist atmosphere. When they are quite cool the potatoes are inoculated by means of the inoculating needle, which is dipped in some growth of the organism to be cultivated, and then drawn over the cut surface.

Meat Infusion.—This is made from meat which is as far as possible free from fat. To make one litre of infusion one pound of meat is taken, and chopped up into mincemeat. This may then be set to simmer in a litre of water for one hour, after which the solid parts are separated by straining; or it may be soaked in the water for twenty-four hours in an

FIG. 22.



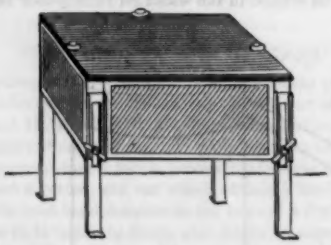
Apparatus for sterilising blood serum.

ice-safe. At the end of this time the liquid part is poured off and the meat is pressed so as to extract all the juice from it, and this is added to the rest of the liquid. The remaining part of the process is the same in either case. If a neutral solution is required, the liquid is neutralised with sodium carbonate and sodium phosphate (Na_2PO_4), the latter salt being used to complete the process. When a peptonised solution is needed the peptone is stirred in and dissolved at this stage. The liquid is then boiled to coagulate the albumen, strained and filtered, and then steamed for half an hour. After this it is filtered and steamed again, and if it is not quite clear the process is repeated. When clear the liquid is introduced into one of the flasks above described, and then steamed for three days in succession for half an hour each time. This is Tyndall's method of sterilising a fluid. Before it is first strained the infusion contains micro-organisms, both spores and active forms. The latter are killed by the first steaming, and during the first interval the spores have time to develop into active forms, which are killed at the second steaming. The third steaming kills any which may not have developed at the first interval. Infusions so treated

may be kept, in well closed vessels, clear and sweet for an indefinite length of time.

Coagulated Blood Serum.—This may be used for cultivation at the body temperature. Sheep's blood is the best to use. Immediately after it is taken from the body it is poured into tall glass vessels where it is allowed to coagulate. The froth is carefully removed from the top of the liquid, and any blood which there may be on the upper, empty part of the vessel is wiped away. It is best to keep the vessel in an ice safe while the serum is separating. After thirty-six hours the serum is carefully drawn off by means of a syphon and received into a flask. From this it is transferred to sterilised test tubes. The serum is sterilised in the apparatus represented in Fig. 22. It consists of a cylindrical box with double sides, floor, and lid which contain water. The lid has a process by which it may be heated separately from the rest of the box. There is a central pillar in the interior and four vertical partitions passing from it to the sides. These are for the purpose of supporting a number of test tubes in a vertical position. The test tubes containing the serum are placed in here and sterilised by being heated for six days in succession, to a temperature of 58° C. for one hour a day. In order to coagulate the blood serum the tubes are transferred to another box, represented in Fig. 23. This is a wide shallow box which also has double sides and floor, and a glass top covered with a layer of felt. The two front legs move in grooves in the side, and may be clamped in any position. By this means the floor of the box may be made to slope. The test tubes are laid on the sloping floor of this box and heated to a temperature of 65° C. until the serum is coagulated. The object of placing the tubes in an

FIG. 23.



Apparatus for coagulating blood serum.

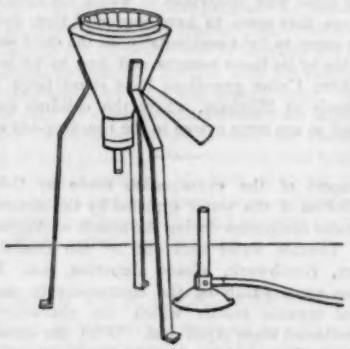
oblique position is to obtain a large surface for inoculation, and a thin, and so more transparent, layer of serum.

Milk.—Skimmed milk is introduced into previously sterilised vessels plugged with cotton-wool and steamed for half an hour on three days in succession. It is then generally sterile and ready for use.

Bread Infusion.—Dry brown bread is used. It is crumbled finely and one part of crumbs is added to two parts of water, in a small sterilised flask. The flask is then steamed as usual. A fine moist pulp results from this.

Gelatinised Meat Infusion consists of extract of 1 lb. of lean meat; gelatine, 50 to 100 grammes (or Japanese isinglass, 10 to 20 grammes); peptone, 30 grammes; sodium chloride, 5 grammes; water, 1 litre. The Japanese isinglass is used instead of gelatine in cases where it is necessary to obtain a material which will remain solid at the temperature of the body—the gelatine mixture becomes liquid at that temperature. The extract of meat is made in the same way as for the simple meat infusion, except that only half a litre of water is employed. The other half litre is used to soak the gelatine or Japanese isinglass. The latter should soak for twenty-four hours before the infusion is to be made. The gelatine (or Japanese isinglass) is added, with the water in which it has soaked, and dissolved in the hot extract of meat, and the peptone and salt are put in. The solution is neutralised as above described. In order to obtain a clear solution, the whites of two eggs are beaten up with some of the liquid, and then added to the mixture slowly, while it is stirred. On boiling, the albumen of the eggs rises to the surface, carrying with it the solid particles, and leaving a nearly clear fluid. This fluid is now poured off, strained, and filtered. In order to keep the liquid warm while it is being filtered, the apparatus represented in Fig. 24 is employed. It consists of a funnel-shaped water-bath, with a side process which projects over a Bunsen's burner. It is closed below by a caoutchouc stopper. The glass funnel used in filtering is placed in this bath, with its stem piercing

FIG. 24.



Apparatus for filtering gelatinised meat infusion.

the stopper. The liquid, when it is filtered, is put into one of the flasks above-described, and thence it is transferred to test tubes, which have been purified by heat. The liquid is then sterilised by Tyndall's process.

LUNACY IN SCOTLAND.

THE Commissioners in Lunacy for Scotland have just issued their twenty-sixth annual report, being that for the year 1883. It shows that on Jan. 1st, 1884, there were 10,739 lunatics under their official cognisance. Of these, 5017 were males and 5722 females. For every 100,000 of the population of Scotland there are 273 lunatics, or a proportion of 1 lunatic in every 366 of the population. The maintenance in 8985 cases was provided by parochial rates, in 1701 cases from private sources, and in 53 cases at the expense of the State. The average daily cost of maintenance of pauper patients is 1*s.* 4*d.* The substance of the report itself may fitly be distributed under three heads:—(1) The insane in asylums and other public establishments; (2) the insane in private dwellings; and (3) the use of the certificate of emergency.

1. With regard to the insane in public establishments, we find that the admissions in 1883 were greater than during the preceding year by 47 among private and by 170 among pauper patients. The mean recoveries per cent. of admissions into asylums and poor-houses was 28. The rate of mortality per cent. of the number resident in different classes of establishments for the year 1883 was, in royal and district asylums, 8·2; in private asylums, 6·4; in parochial asylums, 10·0; and in lunatic wards of poor-houses, 5·2. During the year 167 patients were discharged on probation; and we are informed that of the total number (2647) of patients discharged on probation since 1862, 483 were replaced in the asylums from which they had been removed before the expiration of the period of probation. There were 318 escapes in the year. With the exception of 38 they were all brought back before the legal period for their recapture had expired, and, in the great majority of cases, before they had been away twenty-four hours. Of the 120 accidents reported as having taken place during the year, 17 ended fatally. In 11 of these cases the death was the result of the patients' own acts, 9 being regarded as intentional suicides. One of the fatal accidents, we are told, resulted from one patient being assaulted by another. This "accident" was, presumably, a case of murder, or at least of manslaughter, as the surviving patient was placed in the Criminal Lunatic Department of Perth General Prison. In 32 cases the accidents involved fracture of bones or dislocation of joints. A most interesting table is presented of "the progressive history of patients first admitted into

establishments in the year 1868." We gather from this that the proportion of recoveries among the 1319 patients admitted in 1868 was during the first two years something like 20 per cent. greater than the proportion of recoveries during the succeeding fourteen years. With regard to the data furnished by the number of deaths, the commissioners say: "It may safely be concluded from them that the annual death-rate among patients who have been less than four years inmates of asylums is from about 12 to 25 per cent. of the number resident, and that among those who have been more than four years and less than sixteen years inmates of asylums the annual death-rate is only an average of 5 per cent. of the number resident." This statement would attain a truly scientific interest if it were carried a step further, so as to show, upon similar lines, the mortality due to diseases of the brain and nervous system. The pathological instructiveness of a case of insanity is never completed if the patient dies of heart disease, for instance, or of peritonitis. But if the cause of death can be traced back as a progressive development, in time, of the physical condition of which the insanity is the outcome—i.e., if the insanity and then the death are traceable to the same *origo mali*—how instructive, in its unity and consecutiveness, does the pathological history become!

The commissioners speak very favourably of the generally efficient management and administration of the lunatic asylums in Scotland.

2. Overcrowding is largely prevented by the Scottish system of providing for the insane in private dwellings. On January 1st, 1884, the number thus provided for with the sanction of the Board, was made up of 128 private and 1811 pauper lunatics. This department is more especially the province of the two deputy commissioners, whose reports, given in the appendix, are thoroughly well worth perusal and attention. The experience of the commissioners themselves is entirely in favour of this domestic method of dealing with the insane, and they "have no doubt that in every case prolonged detention in an asylum ought, if possible, to be avoided, unless the interests of the patient or of the public unmistakably require it." We quite agree with this opinion, which indeed, is of the nature of a truism. The difficulty lies in getting the interests of the patients properly looked after, at low rates of remuneration, outside an asylum. If this difficulty of suitable guardianship could be met—and the Scottish practice shows that, so far at least, it can be met—there would be no lack of patients, in these days of cumulative overcrowding. But such patients should be quiet and harmless, for we do not hold with Deputy Commissioner Lawson, when he advocates the "reclamation" of "troublesome ones" in private dwellings. Here the public interests come to be at stake. The interests of the public cannot be served by the presence in their midst of a woman, who, whatever her other virtues may have been, was "restless and bouncing like a deer of the forest," whose affectionateness was "somewhat florid and fawning," who had been "very depraved in her habits," (however, "no *great* degradation in that respect in her new home"!) and who formed a "mutual attachment" with the children of a neighbouring farmer. The improvement in the condition of this woman (M. McB——) "who now speaks a good deal in a jargon which the guardian readily understands," has been very gratifying to the deputy commissioner, who informs us that he was "much struck with the assiduity of the guardian, and could not help noticing that, though she made no complaint, her strength had been taxed by incessant worry." The interests of the public and of a lunatic like M. McB—— living out of an asylum will seldom be found to run on parallel lines.

3. The use of the "certificate of emergency" is peculiar to the lunacy law of Scotland. The legal position of this certificate is shortly stated thus. It is necessary for the continued detention of a lunatic in an asylum that an order for such detention should be granted by the sheriff, and this order is granted upon a petition being presented to the sheriff accompanied by two certificates by medical men stating that the person is a lunatic and a proper person to be detained under care and treatment; but it is also provided that the superintendent of an asylum may receive and detain "for any period not exceeding three days, and without any order by the sheriff, any person as a lunatic whose case is duly certified to be one of emergency" by one medical man. It is not in practice considered that there must be imminent danger to life to constitute circumstances of emergency. The fact that to wait till an order of the sheriff could be obtained would cause undesirable delay in placing a patient under proper case is regarded as sufficient for this purpose. It consequently happens that in the majority of cases patients sent to asylums are admitted in the first instance on the authority of a certificate of emergency. We have no intention of dwelling on the question of the desirability of such certificates; but one or two points strike us in connexion with them. The "emergency" exception to the general rule of certification appears itself, on no very good grounds, to have taken the place of the rule. "Waiting for the sheriff," who, perchance, has gone for a few days' fishing, seems to constitute the "emergency" upon which the lunatic is, out of the usual course, taken from his home to the wards of an asylum. No doubt there are cases where the notion of "emergency" may legitimately be entertained, but, on the other hand, we hold that, under ordinary circumstances, provision should be made for the usual requirements of the law, in the matter of certificates, being carried out without unreasonable delay. We entirely deprecate any hot haste in having the asylum key turned upon an insane person; and the jealousy of the public eye in England is not likely soon to permit the certificate of one medical man to be the only requisite for the lodgment, even for three days, of an individual, especially a moneyed individual, in a lunatic asylum. The commissioners, however, say:—"A consideration of the whole working of the law, as we have it in Scotland, leads us to view the power of placing a patient in an asylum on the authority of a certificate of emergency with decided approval." Of all the cases so certified during the three years 1880–82, 67 were, for various reasons, discharged before the expiration of the three days during which the certificates authorised detention.

From a social standpoint, we regard this report as of immense importance, dealing as it does, outside the usual asylum statistics and detail, with what may fairly be termed extended experiments (*a*) on the speedy removal to asylums of patients in the acute stage on emergency certificates; and (*b*) on the transfer from asylums to private dwellings of chronic cases of insanity. We gladly welcome original and useful work of this kind.

DINNERS AND CONVERSAZIONES.

THE usual inaugural dinner of the past and present *alumni* of *St. Thomas's Hospital* took place on October 1st, Sir Edwin Saunders being in the chair. Dr. Ord, who was called upon to reply to the toast of "The School," took the opportunity of announcing his early retirement from the office of dean, the duties of which he felt himself no longer able to fulfil in consequence of his increasing engagements. Mr. Le Gros Clark was called upon to make a presentation to Mr. Elliott, who for thirty years has acted as surgeryman to the hospital. He remarked that during that long period Mr. Elliott had not only fulfilled his office to the satisfaction of the staff, but had in many ways contributed to the prosperity of the hospital and of the school. The dinner was a generally admitted success, largely due to the services of the honorary secretaries, Dr. R. P. Smith and Mr. Makins.

The *Westminster Hospital* annual dinner was held at the Holborn Restaurant, and, thanks to the exertions of Dr. Murrell and Mr. Barrow, proved in every way a success, being largely attended by both old and present students. Dr. Potter ably filled the chair, and alluded to a remark of Justice Wilies, who had filled a similar post in the afternoon at the distribution of prizes, that the sanitary condition of the nation was the largest question of the present age. The evening was much enlivened by songs from Mr. Black and others, notably by excellent recitations from Mr. Watts Russell and Major Davis.

At the *London Hospital* in the evening of Wednesday, October 1st, the members of the Volunteer Hospital Corps gave a display in uniform before the Lord Mayor, Lady Mayoress, and a numerous assembly. After the distribution of prizes the curtains of the huge marquee, erected for the occasion, were pulled up, and by well-directed lime-lights the large field in connexion with the hospital was illuminated. A number of supposed wounded and dead were seen lying in all directions. First one, then a second, and finally a third body of the Volunteer Hos-

pital Corps appeared on the field with stretchers, haversacks, and water-bottles, and proceeded at once to attend to the wounded. From the field to the dressing stations it was, on account of want of space, but a short distance. In the dressing stations, which also served as field hospitals, the sisters of the Red Cross acted as nurses. Afterwards there was a march past in stretcher detachments, followed by patients on cacolets, litters, and ambulance waggons. The Lord Mayor and Lady Mayoress afterwards visited the dressing station, and inspected the wounded. The students were of the different hospitals belonging to Charing-cross, University, St Bartholomew's, Middlesex, and the London. Surgeon-General Sir Guyer Hunter, K.C.M.G., the Commandant, allotted the directions of the movements to Mr. Cantlie, senior officer of the corps, with Dr. Squire as adjutant, to whom, and to Mr. McLure and Mr. Robertson, the complete success of the parade was due. Members of the London Scottish and Middlesex Artillery acted as patients.

No address was given to the students at *Guy's* during the day, but on October 1st a largely attended conversazione was held, several of the wards being set apart for the reception and entertainment of the visitors, whose number was estimated at 3000. In addition to many interesting microscopical exhibits and displays of surgical and other instruments, all the museums for which the hospital is celebrated were thrown open to the public. The electric light was largely used, and an instrumental concert was given. During an interval, Mr. Lushington, the treasurer, distributed the prizes gained by the students in the Medical School during the past year. Dr. Wilks, senior physician, in moving a vote of thanks to the chairman, stated that the condition of the medical school was prosperous.

The biennial dinner of the old students of *King's College Hospital* was held at Limmer's Hotel on Wednesday, October 1st. Sir William Bowman presided.

THE PROGRESS OF CHOLERA.

CHOLERA still clings with singular tenacity to Italy. In the city of Naples there has been substantial improvement, but the deaths are still from fifty to sixty a day, and the disease has spread somewhat widely over the province of Naples. But improvement in one part of Italy is again associated with extension elsewhere, and English families who have clung to the idea that the Riviera would still be open to them this winter will see with regret the serious outbreak in and about Genoa. Spezia also still remains gravely infected. Taking the entire kingdom, there has been improvement during the past week, but the daily cholera mortality certainly exceeds 200. Rome has again suffered from isolated attacks, which have at once been segregated. This action, and the modern sanitary improvements which have been carried out, have again stood the citizens of Rome in good stead, and have saved them from any extension of infection.

At Marseilles and Toulon fresh cases still occur, and hardly a day passes without one or more deaths. It may be some time yet before these two towns can be regarded as free from infection. Fortunately, there is no further spread of the disease in France.

In Spain the number of infected places does not increase, and no large mortality has occurred in any one town. The provinces of Alicante and Tarragona are, however, still seats of the disease, and much suffering is being experienced by reason of the sanitary cordons which are maintained, and which seriously interfere with trade and with food supplies.

QUARANTINE AND INFECTED PORTS.

Vessels arriving at Constantinople from ports beyond Suez and not subject to quarantine will be admitted to free pratique if they have not embarked passengers during their passage through the canal. On arrivals at Constantinople from Montenegrin ports ten days' quarantine is imposed.

The Danish Government have imposed a quarantine on all arrivals of vessels from any French or Spanish Mediterranean port or any port on the mainland of Italy, on the Gulf of Genoa, or the Sea of Tuscany, on board which any suspicious cases of illness have occurred.

Ships from Spanish ports will, on arrival in Austrian ports, be subjected to ten days' quarantine, provided their voyage has been healthy, and to twenty days' quarantine if any suspicious case of illness has occurred on board.

Vessels arriving at the Gambia from France which have occupied less than twenty days on their voyage will be placed in quarantine, the duration of which will be determined by the state of health of the crew.

In Greece, all arrivals from the coast of Tunis are subjected to five days' quarantine.

Arrivals from Bordeaux are admitted into the port of Lisbon, subject, however, to rigorous quarantine.

All arrivals in Russian Black Sea ports from Italy or Spain are subjected to fourteen days' quarantine.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Gateshead (*Urban*).—We have recently commented at some length on this district in connexion with Dr. Barry's official report. Dr. Green's annual report refers to many of the conditions dealt with by Dr. Barry, and it devotes some attention to the question of infant mortality. This is evidently to an important extent induced by the faulty sanitary surroundings of the children. Many children are brought up in a single-roomed tenement which is overcrowded, which being occupied both by day and by night is never adequately ventilated, and which, with its offensive air, has to act as the place in which the infants' food is kept. The ignorance of the mothers in the lower grades of the population, and the consequent exposure and neglect to which infants are subjected, can probably only be dealt with as education is brought to bear upon the parents. Cellar dwellings in the town evidently need much attention. Many are very damp, and an effort is made to hide this by boarding up the damp walls. Yards are unpaved and sodden, and much squalor prevails in some of them. Infectious diseases caused 229 deaths in 1883.

Belper (*Rural*).—Mr. Gaylor, in his report on the Alfreton district, refers to the difficulties in providing a portable disinfecting apparatus. These difficulties are so great that some such stoves have since been made fixtures. A portable apparatus, where dry heat is used, is not easily made so that an equable temperature can be maintained. Lyon's steam apparatus is probably as efficient in its portable as in its fixed form, but it is ponderous. It would be far better for the authority to erect the infectious hospital they have long thought about, and to bring infected things to a disinfector, than to take a disinfector to the infected things in the different villages, where disinfection can rarely be effected without some carrying about of the articles to be dealt with, even if the apparatus is close at hand. Mr. Allen, in reporting on the Belper district, urges the provision of means of isolation, regarding it as absolutely necessary to proper sanitary work in the rural area. In both districts careful supervision of conditions affecting health is evidently observed.

Huddersfield (*Urban*).—One of the most useful forms of sanitary work is in progress in Huddersfield—namely, a house-to-house inspection. Dr. Cameron regrets that it does not proceed more rapidly, but the reason for delay is that so many unsuspected faulty conditions of drains, privies, &c., are constantly coming under notice. Herein lies the value of the inspection, and when it is completed the tabulated records of the work will at a glance enable the authority and their officers to perceive what sanitary circumstances are peculiar to any special area that may be affected with infectious disease. We wish that more systematic inspections of the same sort were in progress. The system of notification works smoothly. The number of cases of infectious disease which thus came under notice during 1883 was 154. Seventy-three cases were admitted into the sanitary hospital, and some doubtful cases were also reported to the medical officer of health. The death-rate, in a population of 84,450, was 21·4 per 1000 for the year.

Warrington (*Urban*).—In this urban district the death-rate for 1883 was 21·6 per 1000 living. Scarlet fever caused 26 deaths, whooping-cough 28, and diarrhœa 52. Enteric

fever attacked 22 persons, causing seven deaths. A full account is given of the sanitary circumstances associated with each case and of the remedial measures adopted. But after mere local conditions of premises had been dealt with all cause of disease could not be regarded as removed, and Mr. Gornall speaks very strongly as to the influence of sewer emanations in the production of this disease in Warrington, and he urges that remedial action should be taken as to so prevalent a source of danger. As the result of four years' experience, Mr. Gornall says that the system of notification of infectious diseases works most harmoniously. The injury to members of the medical profession, he declares, has been only fancied; private practitioners notify apparently most willingly, and this without any existing good relations between them and their patients being, so far as he can learn, in any way disturbed.

Liverpool (Urban).—Much has recently been said and written as to Liverpool as one of the principal centres of typhus in England, and as to its being one of the cities which is worst off for means of isolation. These matters have also been specially reported on by Dr. Stopford Taylor, and hence in his annual report for 1883 he only incidentally refers to them. The fact that dirt in connexion with conditions of overcrowding has so special a bearing on typhus gives interest, however, to Dr. Taylor's description of house accommodation and lodging, and we are glad to observe that a long list of insanitary dwellings has been reported to the Council as requiring to be dealt with. The number of insanitary houses purchased by the Corporation in 1883 was not large considering the state of many parts of the city, for 91 only were purchased, and of these 67 were demolished. The condition of the sublet houses is also a serious matter. There are as many as 15,268 on the register and 548 more were registered in 1883. The night visits paid to these houses led to the discovery of overcrowding in 1195 cases, and to the detection of a gross amount of indecent occupation, unmarried males and females occupying the same rooms in 660 cases, the number of total occupants of the several rooms varying from three to eight. These rooms also contained 467 children between the ages of five and thirteen years. This is one of the most difficult questions which authorities have to deal with, for any strict regulations strike too severely at the common use of a room by members of the same family, and either lax rules or the absence of rules lead to the result described. In Liverpool the matter can only be met in so far as overcrowding is produced, and 940 tenants were dealt with in that respect. The death-rate in Liverpool was 26·6 per 1000 in 1883. As regards hospital accommodation, the town council have at last taken the matter in hand; a large site by the riverside has been procured and tents have been erected. We could have wished that some more permanent building had been put up, but Liverpool was at the time in face of an emergency, and when the subject is deferred until the emergency arises it is not often that substantial buildings are constructed.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

During the week ending the 27th ult., 5681 births and 3200 deaths were registered in twenty-eight of the largest English towns. The annual rate of mortality in these towns, which in the five preceding weeks had declined from 25·6 to 21·0 per 1000, further fell last week to 19·1. During the thirteen weeks ending Saturday the 27th ult. the death-rate in these towns averaged 22·8 per 1000, against 20·6 and 19·9 in the corresponding periods of 1882 and 1883. The lowest rates in these towns last week were 14·4 in Norwich, 14·8 in Brighton, 15·8 in Huddersfield, and 16·1 in London. In the other towns the rates ranged upwards to 25·1 in Manchester, 25·2 in Halifax, 26·9 in Blackburn, and 28·8 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which in the five preceding weeks had declined from 1314 to 715, further fell to 611 last week; of these, 354 resulted from diarrhœal diseases, 67 from scarlet fever, 63 from "fever" (principally enteric), 48 from measles, 42 from whooping-cough, 24 from diphtheria, and 13 from small-pox. These diseases caused the lowest death-rates in Brighton and Portsmouth, and the highest in Cardiff, Preston, and Blackburn. The highest rates of mortality from measles were recorded in Blackburn and Preston; from scarlet fever in Sheffield and Cardiff; from "fever" in Newcastle-upon-Tyne and Salford; and from diarrhœa in Derby, Blackburn, and Wolverhampton. The 24 fatal cases of diphtheria in the twenty-eight towns included 14 in London and 3 in Liverpool. Small-pox caused 10 deaths in London, 1 in Liverpool, 1 in Sheffield, and 1 in Sunderland. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which in the eleven preceding weeks had steadily declined from 1368 to 471, rose again to 536 on Saturday last; the new cases admitted were 129, against 66 and 65 in the two previous weeks. The Highgate Small-pox Hospital contained 25 patients on Saturday last, 3 new cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 170 and 159 in the two preceding weeks, were 162 last week, and were 57 below the average. The causes of 68, or 2·1 per cent., of the 3200 deaths registered last week in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Leicester, Nottingham, Hull, and in five smaller towns. The largest proportions of uncertified deaths were recorded in Birkenhead, Wolverhampton, and Oldham.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·5 and 20·8 per 1000 in the two preceding weeks, rose to 23·0 in the week ending the 27th ult., and exceeded by 3·9 per 1000 the mean rate during the same period in the twenty-eight large English towns. In the Scotch towns the rates last week ranged from 19·4 and 19·5 in Edinburgh and Leith, to 24·8 in Glasgow and 25·6 in Dundee. The 554 deaths in the Scotch towns included 52 which resulted from diarrhœal diseases, 24 from whooping-cough, 20 from "fever," 14 from diphtheria, 13 from scarlet fever, 8 from measles, and not one from small-pox; in all, 131 deaths were referred to these principal zymotic diseases, against 118 and 130 in the two preceding weeks. These 131 deaths were equal to an annual rate of 5·4 per 1000, which exceeded by 1·8 the average rate from the same diseases last week in the twenty-eight English towns. The deaths referred to diarrhœa, which in the two previous weeks had been 55 and 51, were last week 52, of which 16 occurred in Glasgow and 13 in Dundee. The 24 fatal cases of whooping-cough showed a further slight increase, and included 10 in Glasgow, 6 in Edinburgh, and 4 in Dundee. The deaths from "fever," which had been 10 and 15 in the two preceding weeks, further rose to 20, of which 15 were returned in Glasgow. The 14 fatal cases of diphtheria were 6 less than in the previous week, and included 6 in Glasgow and 4 in Dundee. The 13 deaths from scarlet fever included 9 in Glasgow, where 5 of the 8 fatal cases of measles were also recorded. The deaths referred to acute diseases of the respiratory organs in the eight Scotch towns showed an increase, but were 10 below those returned in the corresponding week of last year. The causes of 9½ or more than 16 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which in the two preceding weeks had been 29·4 and 26·6 per 1000, rose to 30·2 in the week ending the 27th ult. During the thirteen weeks of the quarter ending last Saturday the death-rate in the city averaged 25·4 per 1000, the rate during the same period being 20·9 in London and 17·0 in Edinburgh. The 203 deaths in Dublin last week exceeded by 24 the number in the preceding week, and included 36 which resulted from the principal zymotic diseases, against 42 and 32 in the two previous weeks; of these, 16 were referred to diarrhœal diseases, 11 to scarlet fever, 3 to diphtheria, 3 to whooping-cough, 3 to "fever," and not one either to small-pox or measles. These 36 deaths were equal to an annual rate of 5·4 per 1000, the rate from the same diseases being 2·4 in London and 4·0 in Edinburgh. The deaths from diarrhœa, which had declined in the four preceding weeks from 48 to 21, further fell last week to 16. The 11 fatal cases of scarlet fever exceeded by 6 the number in the previous week, and the 3 deaths from diphtheria were higher than in any recent week. The 3 fatal cases of whooping-cough were within one of the number in the previous week, and the deaths referred to "fever" showed an increase. Eight inquest cases and 5 deaths from violence were regis-

tered in the city during the week, and 47 deaths occurred in public institutions. The deaths of infants showed a decline, while those of elderly persons corresponded with the number in the preceding week. The causes of 42, or nearly 21 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

MADRAS MEDICAL ESTABLISHMENT. — Surgeon-Major Robert William Cockerill, to be Brigade Surgeon.

ADMIRALTY.—Fleet Surgeon Thomas Robert Warren has been placed on the retired list, with permission to assume the rank and title of Deputy Inspector-General of Hospitals and Fleets.

The following appointments have been made:—Fleet Surgeon William J. Eames, additional, to the *President;* Staff Surgeon R. W. Biddulph, additional, to the *President;* Surgeon Otway P. Browne, M.D., to the *Asia;* Fleet Surgeon Edward Jones Butler, B.A., M.D., to the *Achilles;* Staff Surgeon James Robertson, to the *Brilliant;* Surgeon Frederick A. Trevan, to the *Indus;* Surgeon Theodore J. Preston, to the Royal Marines at Chatham; Surgeon Bowens S. Mends, to the *Téméraire;* Surgeon John L. Thomas, to the *Superb;* Surgeon David B. Bookey, to the *Hector.*

ARTILLERY VOLUNTEERS.—1st Sussex: Henry Habgood, M.D., M.R.C.S., to be Acting Surgeon.

Correspondence.

"Audi alteram partem."

THERAPEUTICAL REFORM.

To the Editor of THE LANCET.

SIR,—It is notorious that the coarse, nauseous, and bulky preparations of our official Pharmacopœia are passing out of date; and although we are anticipating the advent of a new edition, rumour says that it will not be a great improvement on the old, which no longer satisfies our requirements. There can be little doubt that it is not the dogmas of Hahnemann that attract many practitioners to homœopathy, and make it so popular with the public. It is the elegant method of administering remedies, the drop doses of powerful tinctures, and the pretty and dainty granules containing the active principles of the nauseous drugs which we employ, that entice those who administer and those who receive the treatment; these are the attractions which give life to the sect, and lend colour to their claim to a better therapeusis. The formation of a new sect is the natural result of every new discovery or advance in therapeutics, unless it is officially recognised and adopted by the profession; those who employ it become loud in their praises of it, and rapidly degenerate into quacks, indicating their possession of the new remedy by the adoption of a distinctive denomination; such persons speedily manufacture dogmas of their own to account for the miracles worked by their new idol. At the present day we see another such a sect developing before our eyes, and it is most instructive to watch its evolution. Because a certain Dr. Burggraeve has discovered a most elegant and probably useful method of dispensing the active principles of drugs in the form of granules, which are said to be accurately prepared, and to contain precise and efficient doses of the drugs, we have a new sect established, calling themselves dosimetric physicians, and issuing a journal of dosimetric therapeutics in which are recorded absurd and ridiculous accounts of how they "jugulate" disease by their new method; so that respectable practitioners are debarred from using new and probably useful drugs by the fear that they may lend countenance to those whom we are compelled to call "quacks" because they "talk noisily and boastfully" of their new method of curing disease.

Another great evil, brought upon us by the desire of our profession for improved therapeutical means and the absence of all official aid and guidance, is the shower of patent pills, pilules, and granules, poured upon us by the druggists. These enterprising gentlemen would compel us to prescribe "Messrs. Smith and Jones's No. 54 pilules," which they will dispense for us in a pretty little bottle, wrapped round with pink paper, on which are stated the various symptoms and diseases that "No. 54" and many other pills are likely to cure, so that on future occasions our fortunate patient may be able to select the number of the pill that he would prefer to take to cure the symptoms with which he may then be afflicted. Even in the case of those druggists whose dearest boast is their care for the interests and respect for the prejudices of the profession, we find ourselves introduced to a new materia medica and a complete pharmacopœia, and if we fail to commit them to heart we are denied participation in the "most recent advances in pharmacy."

It is true that these private enterprises have now provided us with excellent pilules and parvules, which profess to contain exact doses of the most active drugs and all conceivable combinations of them; but I would ask, what security have we for the accuracy and trustworthiness of these preparations? Unfortunately at present we have none, except such as may be found in the objectionable testimonials of those complaisant practitioners who are found willing, for the benefit of suffering humanity, to sing the praises of the particular druggist they employ.

Thus much of complaint, now for the remedy. An agitation has already been set on foot, having for its object the repeal of the Patent Medicines Stamp Act and the reform of the British Pharmacopœia. Both of these objects are desirable in their way, but neither of them strikes at the root of the matter. The repeal of the Stamp Act would still leave us face to face with a multitude of popular preparations of unknown composition, and with manufactured medicines of uncertain potency; while a reformed Pharmacopœia would require reforming at least every year; and although it directs how medicine should be prepared, it gives no guarantee that the medicines we use are prepared as it directs, or that they possess the potency it requires. We require to know that the preparations offered to us contain both the drugs and the exact doses described by their manufacturers, and that they are efficient and reliable. It is true that we could proceed under the Sale of Food and Drugs Act and have each specimen analysed for ourselves, but the process is a tedious and costly one, though no doubt much good might be obtained if the Act were enforced in a systematic and well-organised manner by some one or more of the medical corporations. The Government stamp which is now affixed to certain patent and imported medicines is of no advantage except as a source of revenue, and is often misleading to the public, who accept it as a guarantee of the genuineness of what is really an unknown article. Now, I would have all medicines stamped with a "hall mark" by an official pharmaceutical assay department. It appears to me to be practicable for the Government to establish an extensive analytical laboratory, in which all pharmaceutical preparations dispensed in this country, whether of home manufacture or imported, should be analysed, and if found efficiently and accurately prepared should be stamped and certified as genuine. The articles would be sent to the laboratory in bulk, a sample would be analysed, and the bottling and stamping would be performed while in bond. The charge made for stamping would be amply sufficient to cover the expenses of the laboratories, and would probably prove an important source of revenue to the State.

The examination and analysis of drugs should not be confined to the various pilules and granules offered for our use, but should extend to all imported or manufactured drugs or medicinal plants, as well as to all tinctures, syrups, extracts, cordials, &c. These, by being analysed and their mode of preparation registered, would become trustworthy and official preparations, although their manufacture might still be left to private enterprise, while the dispensing chemist would be provided with packets of drugs and bottles of tinctures on which he could rely, and which would bear upon them the date of their examination when they were found to possess the standard strength. Such a scheme as this would lead practitioners to use those attractive pilules and medicines which at present they admiringly gaze upon, but prudently hesitate to employ, preferring to rely upon the cumbersome and inelegant methods that have received official sanction and approval; it would also terminate the existence of those second-class chemists who, dealing with what are known as "second-class drugs," do not hesitate to imperil human life and render unavailing the services of the physician. The use of uncertified drugs for dispensing the prescription of a registered practitioner would become an

offence punishable by law. At the same time it might be enacted that really new improvements in pharmacy might still be patented for a certain period, giving the druggist the same advantages enjoyed by other tradesmen of profiting by his own discoveries, but that the composition of all patent medicines should be registered and published as a protection to the health and safety of the community.

The officials in charge of this department would probably be entrusted with the preparation of a Pharmacopœia, and we might look for a much more complete and efficient one than that with which we are familiar. This system would not interfere with or in any way repress the private enterprise of the druggists, but would rather encourage it, for I have no doubt that they would find the Government certificate of the accuracy of their preparations the strongest recommendation they could offer to the profession, and the surest means of obtaining an extensive sale for their wares. While those preparations which proved valuable would readily obtain the official recognition and be introduced into the Pharmacopœia.

I believe that if this plan meets with the general approval of the profession it only requires the united action of the various colleges, halls, and licensing bodies, together with the powerful advocacy of the medical press, to obtain the attention and aid of the present or any other Government. No corporate body can so properly and so powerfully move in this matter as the Royal College of Physicians of London, for not only does its charter confer upon the College the right to "supervise and examine all manner of medicines" used by physicians in London, but (by 32 Hen. VIII., c. 40) the College is enjoined to choose four censors from "the best learned, wisest, and most discreet" of the Fellows, who "shall and may, by virtue of this present Act, have full authority and power, as often as they shall think meet and convenient, to enter into the house or houses of all and every apothecary.....to search, view, and see such apothecary wares, drugs, and stuffs as the said apothecaries or any of them have or at any time hereafter shall have in their house or houses; and all such wares, drugs, and stuffs as the said four persons shall there find defective, corrupted, and not meet nor convenient to be administered in any medicine for the health of man's body, the said four persons.....shall cause to be brent or otherwise destroy the same....."

The necessity for this inspection and examination of drugs which was felt in the reign of King Henry VIII. probably exists in no diminished degree to-day, and the College may feel that, though the same machinery is no longer competent to fulfil the duties and responsibilities imposed upon the College by statute, it is nevertheless incumbent upon it either to undertake these neglected duties itself or to urge upon the Government the adoption of some suitable method directed to attain the same end.

I am, Sir, yours faithfully,

Manchester-square, W., Sept. 27th, 1884. F. A. MAHOMED.

LUNACY LAW AGITATION AND SUICIDE.

To the Editor of THE LANCET.

SIR,—In your issue of June 28th last, and in your last number, there appeared singularly interesting letters from Dr. Adam under the above heading. To be read in connexion with those letters, will you be so good as to publish the following statement of facts.

"A month ago, a lady in this neighbourhood, aged between forty and fifty, became afflicted with acute insanity, marked by various delusions, and accompanied by threats of self-destruction. Her medical attendant advised immediate removal to an asylum. The husband signed the necessary order for admission; two medical practitioners, well known and thoroughly competent men, examined and certified the patient. But the proprietor of the asylum in which it was desired to place her declined to send nurses from his establishment to remove her from her home—naturally enough, after Mr. Justice Hawkins's dictum in a recent trial as to the law of trespass and assault. The medical attendant, more naturally still, declined to move: being of opinion that, having given his best advice, and having certified his patient, his duties ended there. The husband, over eighty years of age, and feeble in mind and body, was not capable of acting with the necessary vigour. The only other person who might have acted perhaps, though not related to the patient, refused, having doubts as to the accuracy of the diagnosis. The result was that, instead of being properly treated, in a suitable place, this unfortunate lady was found, a few days later, lying upon a neighbouring railway line, mangled and dead. She had left her home as though for a morning stroll, and had deliberately placed her head under an advancing engine. Mark that the disorder was in an early stage, and (to quote Dr. Adam) easily curable.

You, Sir, have favoured us in your journal of late with many disquisitions upon lunacy law and practice, most of them, let me assure you, galling beyond measure to those gentlemen who are engaged in this specialty. Will you ponder over the occurrence which I have related, and say where or with whom, in your judgment, lies the responsibility of this death—I had almost written, of this murder. Is it in the law or in Mr. Justice Hawkins's interpretation?

I am, Sir, yours faithfully,

Laverstock, near Salisbury, Sept. 29th, 1884. H. J. MANNING.

*** The fault in this case was obviously that of the friends. The certificates being signed, it was for the friends to take the case to the asylum. If the friends of a sick woman had an order for her admission to the hospital, and while they were wasting time she became delirious and jumped out of window, no one would think of blaming the hospital staff for the accident; still less could the benevolent giver of the admission note be blamed. Surely it is no part of a medical man's business to take his patients to an asylum. It is this fussy interference with patients that discredits medicine and degrades the profession. Let practitioners remember that they are neither "touts" for asylums nor agents for the removal of refractory lunatics. It is work for which they are unfitted. The way in which insane patients are coerced or cajoled into asylums is most discreditable. The whole blame in this case rests with the friends. We think the managers of the asylum and the medical men concerned acted most judiciously. The neglect of the friends was culpable. It is nothing to the point that the husband was eighty. When a medical man exceeds his duty he lowers his professional character and places himself in a false position.—ED. L.

"BICYCLE RIDING AND PERINEAL PRESSURE: THEIR EFFECT ON THE YOUNG."

To the Editor of THE LANCET.

SIR,—Mr. H. A. Allbutt accuses me of bringing forward in my paper on this subject unfounded theories "entirely unsupported by facts." The letter of Dr. G. Herschell published by you at once disposes of this accusation. Mr. Allbutt asks whether I "have met with a single case of perineal mischief, the result of cycling, within the last ten years." In reply, I beg to inform him that I have met with such a case within the past six months. I am not in general practice, and so have little opportunity of meeting with such cases, but perhaps if a few general practitioners would be so kind as to relate their experiences in this matter, it would be found that, even at this early day in the era of cycling, there are sufficient grounds for calling attention to the excessive use of these machines as at present constructed by growing, undeveloped boys. I was not aware until now that a "healthy look and jolly manner" were sure tokens of virtue in young men; neither did I infer in my paper, as Mr. Allbutt assumes I did, that the results of cycling mentioned were to be found in the young-men cyclists of to-day, who were, most of them, young men before they mounted a machine. It is ten years hence that we are to look for the results of the excesses of to-day, when our boy-cyclists of ten, twelve, and fourteen have reached man's estate, or what immoderate cycling has left them of that heritage.

Mr. Allbutt's concluding argument against my paper—viz., "that it may injure an industry which is giving employment to thousands"—is weak. The "drink traffic," as it is called, gives employment to hundreds of thousands, yet I am afraid that fact would hardly be received as an argument in favour of silence on the subject of drunkenness. By-the-bye, cycling and drinking are somewhat alike. Moderate indulgence in either does little harm and sometimes positive good; in both there are great inducements to

excessive indulgence, and when excess in either steps in health rushes out by the other door.

Whether a saddle, such as Dr. Herschell suggests, can be devised is doubtful, for when the thigh is extended, as it is in riding large bicycles, the ischial tuberosity projects very little past the posterior line of the femur; and when the hamstring muscles become tense the tuberosity as such is abolished and an almost vertical plane takes its place.

I am, Sir, yours faithfully,

S. A. K. STRAHAN, M.D.

Berry Wood, Northampton, Sept. 1884.

To the Editor of THE LANCET.

SIR,—The alarmist tone that characterises Dr. Strahan's article on cycling, and the formidable indictment it contains against a popular sport, lose much of their force when it is seen that they are due to theoretical considerations alone. Dr. Strahan may have met with cases which appear to bear out his contentions, but if so, I venture to believe that his experience is a very exceptional one. It is possible that to a youth already morbidly sensitive from past vicious indulgence the saddle friction involved in riding may be injurious. But given a fairly healthy lad there is no doubt, as Mr. Allbutt ably argues in your last issue, that the beneficial influence of cycling on the physical condition generally is more than sufficient to outweigh and to nullify any slight local excitation such as may possibly arise in a limited number of cases. As to the comparison between horse-riding and cycling, it is beyond all question that the local "stimulation" is far greater in the former than in the latter. The motion and pressure involved in equitation, especially in beginners, are distinctly more suggestive and provocative of erotic sensations than those to which the cyclist is subjected. On this point strong evidence was but quite recently adduced in my hearing by a well-known bicycle rider, who is also an accomplished horseman. With regard to the "spinal shocks," made much of by Dr. Strahan, their influence is of a still more hypothetical nature than that of the perineal pressure. Careful statistical inquiry has, I apprehend, still to be made, but speaking from a very large acquaintance with cyclists, ranging in age from five to sixty years, I agree with Dr. Allbutt in joining direct issue with Dr. Strahan. Abuse there undoubtedly is of cycling, as of everything else, leading chiefly, as in all forms of athletic exercises, to damage of the thoracic viscera; but beyond this the sweeping charges of Dr. Strahan seem to be almost devoid of support. And when it is considered that the vast majority of cyclists are middle-class men and lads, cooped up in towns and largely employed in insanitary places and occupations, it is almost impossible to overrate the advantage accruing to society from the popularisation of the sport in question. Before it came into vogue, that dreariest of occupations to the average man, "taking a constitutional," was practically the only means afforded such an individual of getting exercise. Now we have provided for us an attractive therapeutic means of combating directly some of the most prominent evils incidental to town life; under its influence dyspeptic troubles disappear, the brain clears, mental morbidity merges into optimism, a new interest in life is created; in short, unless the hobby is literally ridden too hard the result is, as far as my observation goes, wholly beneficial. In point of fact, even when indulged in to an extreme degree, cycling is singularly free from the dangers that accompany most forms of athletic exercises. As an illustration I would adduce a case I have under observation at present, that of a confirmed gouty subject, who has suffered for years from exceedingly well-marked aortic stenosis and regurgitation, yet until very recently my patient has been an enthusiastic tricyclist, without, at any rate, any subjective inconvenience whatever. In fact, he declares that at the end of several hours' run he almost invariably felt better than when he started, and is inclined to resent the embargo I have laid upon the use of his machine for the future.

Permit me to mention one other case in conclusion, that of a gentleman aged sixty, who a year or two ago was fast sinking into the listlessness and degenerative condition generally of old age. It is hardly too much to say that the judicious use of the bicycle—one of the "safeties"—has "renewed his youth"—at any rate added zest, and, in all human probability, years, to his life.—Yours truly,

Brockley, September, 1884. J. S. BOOTHROYD, M.D.

OVER-PRESSURE IN SCHOOLS.

To the Editor of THE LANCET.

SIR,—In dealing with the question of over-pressure in schools, it appears to me that in regard to elementary schools at least one very important factor has been omitted in the consideration of the question generally.

It is admitted that the alarm of over-pressure has been more brought to the front of late years, in fact, it is only for the last very few years that it has been an object of public attention. Over-pressure in reference to pupil teachers attracted more notice in the earlier days of the Education Act, and it was not without good cause that relaxations were made for the relief of these young persons.

The point that I think has been overlooked is that, owing to the compulsory attendance of all children, a great number of boys and girls are obliged to attend school who, in the absence of compulsion, would be kept at home or sent to dames' schools owing to weakness or delicacy of constitution. It is probably owing to the presence of these children in the school that so many cases of breakdown are met with at this time. It is far from being proved that the present high pressure system of teaching turns out better children than the former less pretentious system did. I call to mind numerous instances of the sons of artisans and of poorer parents than the average workman, who under the old code, and even before the code, were so taught as to enable them to take up positions of trust and importance in after-life.

My experience of over-pressure in public schools differs *in toto* from that of Mr. Barford as stated in THE LANCET last week. It is a matter of constant observation that the boys here look better and bonnier at the end of the term than they do on their return from their homes. There may be, and no doubt there are, some boys who require attention on their return from school, yet, on the other hand, there is always at the beginning of a new term a number of boys who are not well enough to return to their work. That number I find is usually greatly in excess of the number of boys out of school from illness during the term. There must, in a population of five or six hundred, whether boys or men, be a certain percentage of more or less feeble constitutions, who are ailing or on the sick list without the smallest amount of over-pressure in the matter of work.

I am, Sir, yours very truly,

Marlborough College, Sept. 29, 1884. WALTER FERGUS.

"THE UNCERTAIN COMPOSITION AND ACTION OF GREY POWDER."

To the Editor of THE LANCET.

SIR,—Many years ago, at least twenty, I called attention in the *Indian Medical Gazette* to the tendency of the mercury in this preparation to assume the dangerous form of red oxide, and especially in a warm climate. I find as a matter of experiment that mercury with magnesia is perfectly stable provided pure mercury be used and no other ingredient added to the magnesia carbonate to expedite the minute division of the mercury, which must be effected by long-continued trituration; it is immaterial whether the light or heavy form of magnesia carbonate be used. I may remark that blue pill in suspension can be most conveniently given to infants.

I am, Sir, yours truly,

H. COOKSON, F.R.C.S.,

Totnes, Sept. 27th, 1884. Surgeon-Major, Indian Army (retired).

SALTS OF IRON.

To the Editor of THE LANCET.

SIR,—In prescribing salts of iron for patients I am constantly met with the inquiry, Will the teeth be injured by the medicine? There is a wide-spread belief among the laity that preparations of iron are injurious to the teeth, a belief which is also fostered by dentists. In some instances the prejudice amongst patients is so strong that a great difficulty arises in the matter of treatment when iron is indicated, especially in those cases, by no means rare, in which patients declare they cannot take pills. I suppose the blackened condition of the tongue and teeth, which is often seen after salts of iron have been taken, is due to a deposit of the sulphide of iron. Is this injurious to the teeth

if not removed? If so, what is the nature of its action? I shall be glad of any expression of opinion on the part of your correspondents. The general question of the action of food and drugs upon the teeth is an interesting and important one. For instance, is sugar injurious? What is the risk also to the teeth in taking acids as tonics? I am, Sir, yours truly,

Doncaster, Sept. 27th, 1884. JAMES W. SMITH.

*** Mr. Coleman, in his "Manual of Dental Surgery," says: "The effects of administering medicines, especially acid ones, have by some been considered important factors in producing dental caries. We believe that it has been overrated; at the same time the long continuance of acid medicines renders such secretions as the saliva abnormally acid; and the direct contact of such acids as phosphoric, hydrochloric, and nitric may no doubt in time affect the teeth, as they certainly do certain kinds of metallic fillings in them. The common practice of employing a tube when taking acid medicines is of but small advantage compared with a thorough rinsing of the mouth with a solution of bicarbonate of potash or soda afterwards." Mr. Coleman does not refer to iron, but it may almost be taken for granted that the *remedies* are not nearly so hurtful to the teeth as are the *maladies* for which they are administered. See also Tomes' Dental Surgery, second edition, page 731.—ED. L.

"THE EXAMINATION OF SURGEONS-MAJOR."

To the Editor of THE LANCET.

SIR,—I have been considerably amused at the estimate which the ex-President of the Royal College of Surgeons of Ireland has formed of the value that a knowledge of operative surgery and practical medicine is to surgeons-major in the army. He appears to consider this, in their case, to be on a parallel with a knowledge of the goose-step to a lieutenant-colonel. This would scarcely seem an adequate illustration of Mr. Wheeler's own attainments and position as the surgeon of a large hospital and ex-President of a Royal College of Surgeons. He protests against the insult to a surgeon-major implied in his having to undergo an examination to show his fitness for promotion from the executive to the administrative rank. The Director-General may fairly desire to have some assurance on this point before taking the responsibility of recommending him for promotion on the grounds of ability and merit. But then, think of testing an officer of twenty years' service as to his knowledge of operative surgery and practical medicine! The ex-President must, I imagine, have been subjected to something of this kind, so far, at least, as surgery is concerned, before he was admitted to the honour of the Fellowship of the Royal College of Surgeons of Ireland. Why do not those "elderly victims" avoid the indignity of the proposed examination by following the excellent example which he has set them in this respect? It seems to be intended that medical officers possessing the Fellowship of any Royal College of Physicians or Surgeons granted under a higher standard of qualification than that for licentiate or member, will be exempted from examination in medicine and surgery. The Director-General does not seem to have adopted the idea of a one-portal system, but, in accordance with the views of Professor Huxley, and I believe also of Mr. Wheeler himself, appears to be perfectly satisfied with the qualifications to be obtained from any of the recognised Colleges. Perhaps Mr. Wheeler is not aware that middle-aged medical officers of the German army were competent a few years ago to go through a course of operative surgery under Professor Langenbeck, and were ordered to Berlin for that purpose.

I am, Sir, your obedient servant,

September, 1884. X. Y. Z.

THE STATE OF THE WEY.—The Guildford Rural Sanitary Authority have called the attention of Messrs. Spicer to the general opinion that the poisoning of fish in the river Wey was caused by an influx of some deleterious matter from their paper mill, and have ordered a careful inspection of the river to be made by the medical officer of health.

NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

THE SANITARY CONDITION OF NEWCASTLE.

OUR medical officer of health, Mr. H. E. Armstrong, has just issued his report on the sanitary condition of the city during the past year. This work of Mr. Armstrong's is too elaborate to be dealt with in this letter, but it is sufficient to say that it bears every mark of industry on the part of the writer, and shows besides a full and accurate knowledge of the working and requirements of the departments under his charge. Great care is shown in the compilation of the various tables and statistics throughout the report, which is likewise accompanied by very clear maps showing the portions of Newcastle at which scarlet fever, small-pox, enteric fever, and typhus appeared during the year, distinguishing the fatal and non-fatal cases. As to infectious diseases, he reports that there had been notified to him by practitioners in the city 2032 cases, and he remarks that as far as he can judge, "the notification clauses of the Newcastle-on-Tyne Improvement Act, 1882, are working, and are likely to work, smoothly, and with the satisfaction of the inhabitants." Mr. Armstrong shows very forcibly in his report that the most striking fact disclosed in the infectious diseases inquiry is the generally imperfect character of the separation made between the sick and healthy, even in large private houses and middle-class ones, and he asks what is to be expected in the case of tenemented houses of one, two, or three rooms, of which there are several on the same stair and scores in the same street. One inference he thinks is plainly deducible from the facts brought out in his report—namely, "that the greater prevalence and tendency to spread of the diseases in question"—in the densely populated districts—"is due to the fact that for the working-classes no such thing as home isolation of the infected sick is possible," and he further asks, "Ought this to be allowed? Have the public the right to protection from the danger to which they are exposed from such a state of things? Should not those authorities who provide accommodation for the fever-stricken have the power to insist on their removal from such unhealthy areas for the good of themselves, their relatives, neighbours, and the public in general." Speaking for myself as a practitioner, and from what I know of the feelings of other practitioners who have much contact with the working classes, I would answer Mr. Armstrong's questions by saying "No" to them all. Before he gets this summary medical jurisdiction for our poor I think it will be in common justice incumbent for our authorities to provide healthy dwellings for the working classes; for in town improvements they are little considered, but every so-called "improvement" packs the poorer classes more and more, and makes their condition worse than before. Far too little prominence is given to this aspect of sanitation.

NEWCASTLE WORKHOUSE AND ITS MEDICAL OFFICER.

As might have been expected from the increase of our city population, the Newcastle workhouse and its hospital have together expanded very much the last few years. Mr. N. Hardcastle has held the arduous post of medical officer for a great many years, spending a considerable but still a necessary time every morning in the performance of his duties, and liable at any time to be summoned to attend in urgent cases. Quite lately the guardians have—as a "fad"—requested him to attend at least twice daily, but without any augmentation of his stipend. Mr. Hardcastle stated, while asking for additional remuneration, that at various unions this duty was found to be quite unusual, and in asking for consideration, he points out that the labour involved in each visit requires him to compass some 700 or 800 miles annually. Mr. Hardcastle's request is a perfectly reasonable and just one, and ought to be at once complied with, or the guardians should provide him with a resident assistant.

Since the above was written the question has come up for settlement by the guardians. The House Committee reported against any increase, and, this being supported by the "economists," was carried by a majority of one. It was mentioned during the discussion that Mr. Hardcastle had acted as medical officer to the workhouse for twenty-nine years without a complaint. The feeling I hear expressed on all sides as to the action of the guardians in the matter is surprise at their shabby behaviour to an old officer, at the

same time it is felt and believed that ere long the board will give Mr. Hardcastle the advance he asks as an act of bare justice.

Newcastle-on-Tyne, October, 1884.

GLASGOW.

(From our own Correspondent.)

THE OUTBREAK OF ENTERIC FEVER IN THE HOSPITALS.

DR. RUSSELL'S report on the outbreak of enteric fever in the Glasgow hospitals is one of the most interesting and valuable documents of its kind ever presented to the public. It shows three things very clearly—the excellence of the methods of investigation pursued by our sanitary authorities, how entirely the Public Health Acts are set at nought by the rural authorities in Scotland, and how great are the risks to which large urban populations are exposed from the culpable neglect of these rural authorities. This outbreak occurred suddenly and simultaneously in our three large hospitals, the Royal and Western Infirmaries, and the Belvidere Fever Hospital, institutions situated at long distances from each other, entirely separate as to drainage, and agreeing only in the source of their water-supply and their milk-supply. The former (the water-supply) was excluded, as the outbreak did not extend to the city generally. The milk for these institutions is obtained through an agent from about forty different farms, and investigation showed that at one of these farms—Fergushill, near Kilwinning—all the conditions prevailed which would favour the conveyance of the fever poison in the milk sent to town. There had been a patient suffering from fever on the farm. Enteric fever had been epidemic in the adjoining villages for over two years, and the water-supply of the farm was found to be extremely defective, while the streams from which the cattle drank received the sewage of the infected villages, and had caused a considerable mortality among the farmers' cows. The chain of evidence is thus complete. This I understand to be the second occasion on which disease of this kind has been sent from the same district to Glasgow. The present epidemic has so far involved 104 persons: 44 in the Western Infirmary, of whom 10 are males; 31 in Belvidere; and 29 at the Royal Infirmary. The disease is telling with special severity on the scarlet fever patients in Belvidere. In addition to those occurring in hospital, a few have been traced in the city among persons recently discharged from hospital. After referring to the notoriety of the bad sanitary condition of Kilwinning, Dr. Russell's report to the Town Council concludes thus: "The Local Authority put the circular [issued by the Board of Sanitary Supervision specifically upon the sanitary condition of dairy farms] in their waste basket, and it has been left for you, in self-defence, to obtain these analyses. It now remains for you to forward the results to the Board of Supervision in the hope that some means may by it be found to compel the Local Authority to do their duty. It is by such by-paths that cholera will find its way into our large cities." It would be interesting, if it could be ascertained, what was the nature of the feverish disease from which the farmers' cows suffered, as there is, so far as I am aware, no authentic recorded case of typhoid fever in the cow." The situation would not have been complete without the occurrence of a squabble at the Royal Infirmary. A difference of opinion arose between the medical staff and the managers as to the infectiousness or non-infectiousness of enteric fever; but, somewhat unusually, this difference of opinion seems to have been settled in favour of the view held by the staff.

IRELAND.

(From our own Correspondent.)

SANITARY CONGRESS AND EXHIBITION.

THE Sanitary Congress commenced last Tuesday. At one o'clock luncheon took place, and at three the Health Exhibition was formally declared open. At eight P.M. the inaugural address was delivered by the President, Sir Robert Rawlinson, C.B., in the lecture theatre of the Royal Dublin Society. His Excellency the Lord-Lieutenant was present at the banquet given on Thursday evening at the Shelbourne Hotel.

A BONE-SETTER IN TROUBLE.

An important case affecting that class of the community who believe implicitly in the skill of the local bone-setter was under investigation at New Pallas, county Limerick, last week. Some time since, a boy fell off a donkey and broke his arm; the services of a bone-setter were obtained, who put up the fractured limb; gangrene, however, set in, and the boy died. Dr. John Ryan, the medical officer of Grean dispensary, deposed at the inquest that he had examined the child, and that in his opinion death had resulted from gangrene of the arm caused by extreme pressure, in consequence of the parts having been bandaged too tightly. The jury found a verdict to this effect.

THE SEWAGE OF DUBLIN.

Sir Robert Rawlinson, C.B., in returning thanks for his inaugural address as President of the Sanitary Institute of Great Britain, at the Sanitary Congress held in Dublin this week, said he had, with Dr. MacCabe, in 1879, investigated the sanitary condition of Dublin as to its sewerage and drainage, and the state of the Liffey. He did not wish to paint Dublin in colours blacker than it deserved, but he was bound to say that there was a great deal to do as regards its sanitary condition which was absolutely necessary. He was of opinion that out to sea must go the whole of the crude sewage of Dublin, because the river Liffey must be purified, and intercepting sewers, having a sea outlet, would be the cheapest remedy. No city in the world was perfect as regarded its sanitary condition, and therefore the motto of sanitation must be, "Unceasing work, unceasing care, and unceasing attention."

FREE LIBRARIES IN DUBLIN.

The seventh annual Congress of the Library Association of the United Kingdom was commenced last Tuesday at Trinity College, when the opening address was given by Dr. Ingram, librarian to Trinity College. On the following day the new Free Libraries at Capel-street and Thomas-street were formally opened by the Lord Mayor, and in the evening a conversazione took place at the Mansion House.

THE DUBLIN ORTHOPÆDIC HOSPITAL.

The supporters of this institution, in consequence of the increasing demands for admission and the absolute necessity for additional room, so as to provide further accommodation, have secured new premises. The new hospital will be in Great Brunswick-street, and provision will be made so as to accommodate fifty inmates. The necessary alterations are nearly completed, and in a short time the inmates at Ushers Island will be moved to the new hospital in Brunswick-street.

His Royal Highness the Duke of Cambridge, while on a visit to Dublin this week, inspected the Royal Military Hospital and the Female Hospital for the Wives of Soldiers. Before his departure from the latter he wrote a memorandum in the visitors' book, stating that he found it in every respect in excellent order, and most creditable to the matron and those in charge.

From the annual report of the Registrar-General for Ireland for 1883 it appears that the births registered during the year were 118,163, and the deaths 96,228, a number equal to 1 in 52·1, or 19·2 per 1000, of the population. The emigrants numbered 108,724, and the estimated population to the middle of the year was 5,015,282.

The Local Government Board has sanctioned the appointment of Dr. Donovan as medical superintendent officer of health for the City of Cork.

Dublin, Sept. 30th.

PARIS.

(From our own Correspondent.)

THE LAICISATION OF THE HOSPITALS.

M. QUENTIN, the Director of Public Assistance, has, owing to some disagreement between him and the Prefect of the Seine respecting the work of laïcisation in the hospitals, resigned his office, and is to be succeeded by M. Cazelles, Prefect of the Bouches-du-Rhône. M. Quentin wanted to complete the laïcisation of the hospitals without further delay, but M. Poubelle, the prefect, found it expedient to put a check on the operation, as the Government has found

to its cost that the class of women from whom nurses are recruited are quite unsuited for the care of the sick in the hospitals. Several irregularities having been brought to the notice of the authorities regarding the conduct of the "infirmières," which contrasted so unfavourably with that of the Sisters of Charity, it has been found necessary to put a restraint on the extreme measures hitherto carried out in some quarters in the work of laicisation, and an instance has just occurred at the Hôtel Dieu at Auxerre, at which the disorderly conduct of the infirmières was so notorious that the Town Council thought proper to propose their dismissal and the reinstatement of the Sisters of Charity. The most remarkable feature of the affair was that the proposition emanated from the ultra-Radicals, who are also town councillors, and which was unanimously agreed to by the commission ordered to investigate the matter. Another reason alleged for the proposed change is that in the event of an outbreak of cholera, patients and officials would be found in a painful predicament without the Sisters of Charity in the hospitals, as was only lately exemplified at Toulon and Marseilles and other cholera-stricken districts, where the Sisters were recalled and their devotion and self-denial fully recognised.

M. Waldeck-Rousseau, the Minister of the Interior, has been laid up with a rather severe attack of rheumatism. He is now convalescent, and though not yet allowed to leave his room he is sufficiently well to transact the duties of his office.

The holidays being over, the reopening of the schools has just begun, and strict orders have been given that the state of the health of the pupils returning from the provinces should be rigorously inquired into, particularly of those coming from the cholera-stricken districts.

Paris, Oct. 1st, 1884.

CANADA.

(From a Correspondent.)

ASYLUMS AND LUNACY LAWS.

THERE has been a good deal of excitement in Montreal over the case of a young woman who has been for two years in the Long Point Asylum, although some of her friends assert that she has been perfectly sane during the whole period. The case of Ward, who was imprisoned in the same asylum some time ago by his wife, is a notorious example of false deprivation of liberty. The Lunacy Law in Quebec is very lax. The Ontario law, some years ago, was almost a reprint of the British statute. It has, however, been greatly altered and improved. Formerly the finding of two physicians was sufficient for a commitment, and this could be rather easily obtained. Suppose the family physician stated the facts of the case to another physician, who, placing confidence in his statements, might at his pleasure fill up the required papers without making a personal examination at all. Now, however, the examinations must be made by two physicians independently of each other, the family physician not being eligible. These medical men must not be partners, or father, brother, or son of persons interested in the institution. Their findings are submitted to the superintendent, who makes a separate examination on the admission of the person to ascertain the truth of the statements on which the charge is founded. With regard to private asylums the law is still more stringent. There must be the preliminary examination by two physicians. For each institution there is a board composed of the county judge, the county warden, the clerk of the peace, and the Government physician. The medical superintendent must report to the clerk of the peace within six days from the admission of a patient; the clerk must submit the report to the board. An examination is then made, and if there be no good grounds for restraint, the party is released. Should there be doubt in the matter, a second examination is ordered at an early date to avoid liberating a suspected person during a lucid interval.

CANADA MEDICAL ASSOCIATION.

This Association held its annual gathering in Montreal on August 25th, 26th, and 27th. The meeting was well attended, and much interest taken in the proceedings. Undoubtedly this was the most successful meeting the Association has ever had. All were eager to hear Mr. Lawson Tait's address on Abdominal Surgery, and none were disappointed when they did hear it. Some of the more recent utterances on abdominal surgery of Sir Spencer Wells came in for rather sharp criticism. Among the visitors at the Association from the United Kingdom may be mentioned Mr. Tait, Dr. McMillan of Hull, Dr. Heywood Smith, Dr. George Harley, and Dr. Protheroe Smith of London, Dr. Struthers of Aberdeen, and Dr. MacAlister, editor of the *Practitioner*. The banquet at the Windsor Hotel was excellent in every respect, and reflected great credit upon the hospitality of the profession in Montreal. The feast was presided over by the sage professor, Dr. Hingston of Montreal. The speeches of the British members were listened to with great attention. Wm. Osler, M.D., F.R.C.P., was chosen president for 1885, and the place of meeting, Winnipeg, Manitoba.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The meeting of this Association, which was held this year in Montreal, was a grand success alike in point of numbers, in the excellence of the papers, and in the general programme of amusements. First, there came the civic welcome, delivered by Major Beaudry in Queen's Hall to a large and brilliant audience. Sir John A. Macdonald, Premier of Canada, then addressed the meeting briefly, and congratulated the Association in coming to this country and the country on being favoured by so distinguished a visitation. The Marquis of Lansdowne, Governor-General, and a member of the Association, made a few well-chosen remarks, in which he expressed the hope that so many eminent scholars coming to this country, from different parts in Great Britain, would have a strong influence in binding the Dominion and the mother country more closely than ever. The President, Lord Rayleigh, then delivered his inaugural address. He travelled over a wide field in the course of his remarks, and called special attention to the fact that they would all go back to Britain with extended views regarding the country in which they had met for the first time. He dwelt fully on the dynamo-machine, and was hopeful that the time was near when electricity would be much more utilised than at present.

Many of the members of the Association, after the close of the session in Montreal, paid a visit to Toronto, where they were greeted by a civic address of welcome. The visitors then entered upon their drive to points of interest in the city, and arrived finally at the Government House, where a garden party was held.

Medical News.

ON Tuesday last the memorial stone of the new extension to Bradford Infirmary was laid by the Mayor of Bradford.

ROYAL COLLEGE OF SURGEONS.—The Library and Museum of this institution were reopened on Wednesday last, the 1st instant.

THE master of a British ship has been fined £4 at Cardiff for concealing the fact that there was an epidemic of scurvy on board his vessel.

AT the visit of the Duke and Duchess of Edinburgh to Hull this week, their Royal Highnesses laid the foundation stones of new wings to the infirmary of the town.

THE Freemasons belonging to the several lodges in Hertfordshire have erected in the Watford Cemetery a marble cross to the memory of the late Dr. F. H. Wilson Iles, deputy provincial grand master.

THE Gresham Lectures on Physic will be delivered by Dr. Symes Thompson in the theatre of Gresham College, Basinghall-street, on Tuesday, October 7th, and three following days.

THE CARTWRIGHT PRIZE.—This prize of the Alumni Association of the College of Physicians and Surgeons of New York, consisting of $500, will be awarded at the commencement of 1885 to the authors of the best medical essay upon any subject. The essays, which must contain the results of original investigation made by the writer, are to be sent in to the prize committee, of which Dr. R. W. Amidon, 18, West Twenty-first-street, is chairman, before April 1st, 1885.

COLLECTIVE INVESTIGATION.—A special meeting to further the above object will be held in the Board-room of the Guildford Hospital on Thursday, October 9th, at 3.30 P.M., Jonathan Hutchinson, Esq., in the chair. There will be a discussion upon the subject of "Chorea and Acute Rheumatism." Specimens of bacteria will be shown by Messrs. Beck of Cornhill. A display of instruments will be exhibited by Messrs. Arnold and Sons.

ST. JOHN AMBULANCE ASSOCIATION.—A class at Parkhurst Prison, Isle of Wight, instructed by Dr. Arthur Price, has undergone examination by Surgeon Major V. Wearne, A.M.D., and the Governor, Major F. H. Nootl, and seventeen warders have been reported to St. John's Gate as thoroughly competent to render "first aid to the injured." The Countess of Strathmore presented 358 certificates to the Dundee classes on Friday, and Lord Egerton of Tatton presided at a meeting at Stockport on Saturday to open the ensuing session.

THE METROPOLITAN ASYLUMS BOARD.—At the meeting of this Board on the 27th ult., returns were presented showing that during the four weeks which had elapsed since the interim meeting of the managers 319 fresh cases of small-pox had been received into the asylums from the districts of the metropolis, as against 295 in the previous four weeks. The fever returns showed that during the fortnight 249 fresh cases of fever had been received, as against 239 in the previous month. A tender of £79,000 for the erection of a convalescent scarlet fever asylum at Winchmore-hill was, being the lowest, accepted.

SCHOLARSHIPS AND EXHIBITIONS.—At University College the examiners recommend the following for medical entrance exhibitions: £100, H. Caiger; £60, H. M. Fernando; £40, S. V. J. Brock.—At Guy's Hospital the entrance scholarship of 125 guineas in Arts has been awarded to Mr. Alfred Parkin, and that of 125 guineas in Science to Mr. James McDonald Gill.—At St. Mary's the scholarships in Natural Science of £75 each have been awarded to Mr. W. G. Holloway and Mr. F. W. Lewitt, and those of £50 each to Mr. C. Graves, Mr. A. M. Hickley, and Mr. C. G. Mack.—At the London Hospital the entrance scholarship of the value of £60 has been awarded to Mr. William S. Fenwick; and that of the value of £40 to Mr. J. H. Sequiera.

THE HAMPSTEAD SMALL-POX HOSPITAL.—At the last meeting of the Hampstead Vestry, a report from Dr. Gwynn, the medical officer of health, on the subject of the spread of small-pox in the parish since the reopening in May last of the Metropolitan Asylums Board Hampstead Hospital for the reception of small-pox cases, came under consideration. Dr. Gwynn's report showed that from May to September, 1884, eighty-nine houses in the whole parish were attacked with small-pox, thirty-three of which were within a quarter-mile circle of the hospital wards, and twenty others between the quarter- and half-mile circle, houses of all classes being attacked. Against these facts was placed a return showing that in the whole of 1881, when small-pox was prevalent in the metropolis and when this hospital was closed, only thirty-six houses in the parish were attacked, but four of which were within the quarter-mile circle of the hospital wards, and only eight others between the quarter- and half-mile circle. After considerable discussion it was resolved to memorialise the Local Government Board to hold an inquiry into the statements contained in the report.

BOOKS ETC. RECEIVED.

ALLEN, W. H., & Co., London.
Nerves and Nerve Troubles. By J. Mortimer-Granville, M.D. pp. 99.

CASSELL & Co., London.
The Elements of Physiological Physics. By J. McGregor-Robertson, M.A., M.B., C.M. pp. 538, with 219 Engravings.

CHURCHILL, J. & A., London.
A Practical Treatise on Disease in Children. By Eustace Smith, M.D. pp. 844.
A Few Suggestions to Mothers on the Management of their Children. By a Mother. pp. 144.
The National Dispensatory. By Alfred Stillé, M.D., LL.D., and J. M. Maisch, Phar. D. Third Edition, thoroughly Revised, with Additions. pp. 1755, with 311 Illustrations.
Lectures delivered at the Royal College of Surgeons of England on some Important Points connected with the Surgery of the Urinary Organs. By Sir Henry Thompson, F.R.C.S. pp. 147, with Illustrations.
The Practice of Surgery. By Thomas Bryant, F.R.C.S. Fourth Edition. 2 vols. 750 Engravings.

EFFINGHAM WILSON, London.
The Social Code, 1884. Compiled by Geo. Ager, LL.D. pp. 224.

HIRSCHWALD, A., Berlin.
Handbuch für Madeira. Von Prof. Dr. Paul Langerhans. S. 206.
Beiträge zur Pathologischen Anatomie und zur Pathologie der Dementia Paralytica. Von Dr. Franz Tuczek. S. 151.
Untersuchungen über Spaltpilze im Menschlichen Blute. Ein Beitrag zur Allgemeinen Pathologie von Dr. G. v. Hoffmann. S. 82.

KEMPTON, HENRY, London.
Surgical Handicraft. By Walter Pye, F.R.C.S. pp. 544, with 208 Illustrations.

LEWIS, H. K., London.
On the Use and Abuse of Pessaries. By G. Granville Bantock, M.D. Second Edition. pp. 173, with Illustrations.

LONGMANS, GREEN, & Co., London.
The Handbook for Midwives. By H. Fly Smith, B.A., M.B. Oxon. Second Edition, thoroughly Revised. pp. 176, Illustrated.
On Sclerosis of the Spinal Cord. By Julius Althaus, M.D., M.R.C.P. pp. 304, with Illustrations.
The Science and Art of Surgery. By J. Eric Erichsen, F.R.C.S. Eighth Edition, Enlarged and carefully Revised. With numerous Engravings.

OPPENHEIM, R., Berlin.
Anatomische Vorlesungen für Aerzte und ältere Studirende. Von Dr. Ad. Pansch. S. 220, mit 70 Holzstichen.

RELIGIOUS TRACT SOCIETY, London.
Leaders in Modern Philanthropy. By W. Garden Blaikie, D.D., LL.D. pp. 319, with 15 Portraits.

REMINGTON & Co., London.
Life in the Soudan. By Dr. Josiah Williams, F.R.G.S. pp. 288, Illustrated.

ROKKER, H. W., Springfield, Illinois.
Fifth Annual Report of the State Board of Health of Illinois. pp. 633.

SIMPKIN, MARSHALL, & Co., London.
Arithmetical Physics. 1. Acoustics, Light, and Heat. 2. Magnetism and Electricity. By C. J. Woodward, B.Sc. pp. 82-53.

SMITH, ELDER, & Co., London.
Clinical and Pathological Observations on Tumours of the Ovary, Fallopian Tube, and Broad Ligament. By Alban H. G. Doran, F.R.C.S. pp. 189, with 33 Illustrations.

TRÜBNER & Co., London.
Lessons for the Instruction of Deaf-and-Dumb Children in Speaking, Lip-reading, Reading, and Writing. By W. Van Praagh. Two Parts. pp. 51-61, Illustrated.
Materia Medica, Physiological and Applied. By several Authors. Vol. I. pp. 726.

URBAN & SCHWARZENBERG, Wien and Leipzig.
Pathologie und Therapie der Frauen-Krankheiten. Bearbeitet von Dr. Aug. Martin. S. 419, mit 164 Holzschnitten.
Grundriss der Operativen Geburtshilfe. Von Dr. Fried. Schauta. S. 259, mit 90 Holzschnitten.

Fifth Annual Report of the State Board of Health of Illinois.—The Treatment of Diabetes Mellitus; by Austin Flint, jun., M.D.—Index Medicus, Vol. VI., Nos. 7 & 8. (Trübner, London.)—Proceedings of the Naval Medical Society, Washington.—Dress of Women and Children; by Francis Vacher.—Cerebral Localisation in relation to Insanity, with Cases; by J. M. Carnochan, M.D. (Vail, New York.)—Etude comparée sur le Lait de la Femme, de l'Anesse, de la Vache, et de la Chèvre; par H. Féry.—La Lutte contre le Choléra; par H. Hanhart. (Baillière et Fils, Paris.)—The Poor-law Medical Service, its Past, Present, and Future; by T. M. Dolan, M.D.—The Leavenworth Case; by A. K. Green. (Routledge.)—The Human Element in Sex; by Dr. Elizabeth Blackwell. Universal-Pharmakopöe; von Dr. Bruno Hirsch; Guy Patin, a Medical Study; Maupertuis and Contemporary Pessimism; Some Comments on Lethargic Stupor or Trance; The Origin of Contagia; by A. M. Brown, M.D.—Cryptorchidism; by R. W. Johnson, M.D.—Medical Communications of the Massachusetts Medical Society, Vol. XIII.—An Examination of the Theory of Aerial Dissemination of Small-pox Infection; by Mr. D. McKuns.—Le Choléra et les Quarantaines, par le Dr. Dutrieux-Bey.—Ars Medici; by J. H. Clarke, M.D.—The Saxon Invasion and its Influence on our Character as a Race; by J. F. Palmer, L.R.C.P.—Remarks on Hernia and Intestinal Obstruction; by J. R che, M.D.—On the Application of Dental Science in the Detection of Crime; by Robert Reid, L.D.S.E.—Illustrated Catalogue of the Chinese Exhibits at the International Health Exhibition.—Annual Calendar of the Faculty of Medicine of McGill University.—Disinfectants, and how to Use them; by E. T. Wilson, M.B Oxon. (H. K Lewis.)—Abstract of Cases &c. at the Monsall Fever Hospital.—Longmans' Magazine, October.—Good Words, Sunday Magazine, October.—Boys' Own Paper, Girls' Own Paper, Leisure Hour, Sunday at Home, October.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BODY, H. MARTEN, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Tuttourn St. Mary District, St. Thomas's Union, Devonshire, vice Fenwick, resigned.

BULL, G. COULSON R., F.R.C.S., M.B., L.R.C.P.L., has been appointed Resident Pathologist and Registrar to the General Hospital, Birmingham.

CARNELLEY, MATTHEW, L.R.C.P.Lond., M.R.C.S., has been appointed Certifying Factory Surgeon to the District of Ruddington, Notts, vice Hall, deceased.

COOPER, ALFRED, F.R.C.S.Eng., L.S.A.Lond., has been appointed Consulting Surgeon to the West London Hospital.

CRIPPS, C. COUPER, M.B., M.S.Durh., M.R.C.S., has been appointed House-Physician to the Hospital for Women, Soho, vice Felix Vintrace, M.D., resigned.

DEAN, FRANCIS, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Workhouse, Northleach Union, vice Webb, resigned.

FLECK, WILLIAM, M.D.Q.U.I., M.Ch., has been appointed Medical Officer to the Workhouse, High Wycombe Union, vice Hayden, resigned.

FURSE, EDWIN, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Workhouse, South Molton Union, vice Flexman, resigned.

GINDERS, ALFRED, M.D. St. And., L.R.C.P.Ed., San. Sci. Cert. Camb., has been appointed Government Medical Officer and Public Vaccinator for the District of Tauranga. Also Health Officer for the Port of Tauranga, Bay of Plenty, New Zealand.

KELTY, WILLIAM, M.B., Ch.M.Aber., has been appointed Government Medical Officer and Vaccinator for the District of Carcoar, New South Wales.

MOXON, HENRY JAMES, L.D.S.Lond., has been appointed Dental Surgeon to the London Female Penitentiary.

ROBINS, GEO. NORMAN, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Rippingdale District of the Bourn Union, Lincolnshire, vice Adams, resigned.

ROGERS, WILLIAM HENRY, L.F.P.S.Glasg., has been appointed Surgeon to the Cobar Hospital, New South Wales.

SCOT-SKIRVING, ROBERT, M.B., Ch.M.Ed., has been appointed Hon. Physician to Prince Alfred Hospital, Sydney.

SHONE, WILLIAM JAMES, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer and Public Vaccinator for the Little Marlow District of the High Wycombe Union, vice Hayden, resigned.

Births, Marriages, and Deaths.

BIRTHS.

HOLMES.—On the 30th ult., the wife of Dr. Gordon Holmes, of Finsbury-square, E.C., of twins.

MARSH.—On the 22nd ult., at Penn-hill, Yeovil, the wife of Charles J. Marsh, M.R.C.S. &c., of a son.

PARNELL.—On the 28th ult., at Forest-hill, S.E., the wife of G. C. Parnell, Surgeon, of a daughter.

UPTON.—On the 18th ult., at Rio Lodge, Brighton, the wife of Alfred Upton, L.R.C.P.Lond., M.R.C.S., of a daughter.

MARRIAGES.

BROWN—MURRAY.—On the 24th ult., at St. Mary's, Hulme, Manchester, J. Macdonald Brown, F.R.C.S. Eng., of Edinburgh, to Caroline Helen, third daughter of the late Alderman Adam Murray, J.P., of Apsley House, Ardwick, Manchester.

MORTON—BARRON.—On the 25th ult., at St. Pancras Church, by the Rev. Andrew Welch, Vicar of St. Mary Cray, Kent, uncle of the bridegroom, assisted by the Rev. W. E. Oliver, LL.D., Shadforth Morton, M.D., of Wellesley-villas, Croydon, son of the late Shadforth Giles Morton, Esq., of Sunderland, to E'la May, eldest daughter of Edward Jackson Barron, F.S.A., of Endsleigh-street, Tavistock-square, and of Lincoln's-inn-fields.

SHERBURN—BAILEY.—On the 25th ult., at St. James's Church, Hull, by the Rev. A. Boyd Carpenter, M.A., Vicar, assisted by the Rev. W. J. Mellish, M.A., Rector of Winestead, Holderness, John Sherburn, M.B., C.M. Edin., of Hull, to Louisa Ainley, youngest daughter of the late Wm. Bailey, J.P., of Winestead Hall, steamship owner.

DEATHS.

BEACH.—On the 29th ult., at Maryville, St. George's-road, Cheltenham, Henry John Beach, Brigade Surgeon, Her Majesty's Indian Army, retired, in his 52nd year.

CORY.—On the 25th ult., at West-mall, Clifton, very suddenly, William Gillett Cory, B.A., M.D., aged 57.

DONOVAN.—On the 1st ult., at Marine Villa, Monkstown, co. Cork, Mary Jane, beloved wife of Dr. Denis D. Donovan, of King-street, Cork. R.I.P.

JACKSON.—On the 24th ult., at Longsight, Manchester, Francis Edward Jackson, M.D., late Colonial Surgeon, Straits Settlements, aged 32.

MASH.—On the 27th ult., at St. Giles's-square, Northampton, James Mash, F.R.C.S., aged 87.

ROE.—On the 28th ult., at his residence, Kensington-crescent, W., Edward Thomas Roe, M.D., aged 64.

WILLIAMS.—On the 25th ult., at Mold, by an accident on the railway, Thomas Williams, L.R.C.P.Ed., L.F.P.S.Glas.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, October 2nd, 1884.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 a.m.
Sept. 26	29·98	W.	60	56	90	66	52	..	Overcast
,, 27	29·98	W.	57	54	85	62	49	..	Cloudy
,, 28	30·13	W.	62	58	98	67	54	·08	Cloudy
,, 29	30·11	W.	62	60	80	65	57	..	Cloudy
,, 30	30·22	S.W.	50	48	89	64	46	·10	Foggy
Oct. 1	30·06	W.	57	55	91	64	49	..	Raining
,, 2	30·11	S.W.	53	49	..	..	46	..	Hazy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

"WHAT IS A MINIM?"

ON this question *Nelson B. de S. Sizer*, B.Sc., M.D., &c., of Brooklyn, N.Y., U.S.A., writes:—"The weights and measures of the United States Pharmacopœia are founded on the troy ounce of 480 grains and the wine gallon. The pint is taken as weighing 7291·2 grains at 60° F. (Pereira's Mat. Med., Am. Ed., 1866). The pound is troy, containing 5760 grains, the ounce 480 grains. From these data it follows that the fluid ounce equals one-sixteenth of 7291·2 grains, or 455·7 grains; the fluid drachm weighs one-eighth of 455·7 grains, or 56·96 grains; the minim weighs one-sixtieth of 56·96 grains, or 0·949 grain. *En résumé*—The B.P. minim equals 0·91 grain troy; the U.S.P. minim equals 0·949 grain troy; the B.P. minim equals 0·95 minim U.S.; the U.S. minim equals 1·04 minim B.P. Lieut.-Col. Herschel will now perceive that the maker of his minim glass was not guilty of a 'systematic blunder' when he sent out a sixty-minim measure that contained about 54·6 grains troy, which was just what it should hold, and that the blundering, if any, must be looked for elsewhere."

Enquirens.—1. (a) Yes, in some cases. (b) An article by Dr. F. T. Roberts in the July number of the *Liverpool Medico-Chirurgical Quarterly Journal*.—2. Dr. Alexander's paper in *Brain*, vol. v., p. 170.

Nemo.—In Reynolds' System of Medicine.

TYPHOID FEVER ON BOARD SHIP FROM IMPURE WATER.

To the Editor of THE LANCET.

SIR,—Such outbreaks of fever on board ship as the one reported from Newcastle in your issue of the 20th ult. as having occurred on a Norwegian vessel used to be frequent enough in ships of all nations. The case of a ship that has put to sea with contaminated water for her only supply is terrible indeed; and the subject is sufficiently important to warrant attention being directed through your columns to one ready resource actually at hand on board British vessels to meet this emergency. In the Scale of Medical Stores the Board of Trade orders a bottle of Condy's fluid to be carried in the medicine chest of every merchant ship, and the simple addition of this to water contaminated with organic matter, as is well known, will render it safe for drinking. No simpler, more rapid, or more economical process can be imagined in such a case than the mere pouring of a little of Condy's fluid into the water in a tank and stirring it. When sufficient has been added to neutralise the impurities, the pink tint no longer vanishes, but maintains itself permanently, thereby affording a valuable indication that the water is then safe to drink. Ship surgeons would be conferring a benefit on masters and officers by informing them of this easy way of dealing with impure water when no other is available.

I am, Sir, yours obediently,

J. B. MITCHELL, M.D.

Titchfield-terrace, Regent's-park, Oct. 1st, 1884.

Dr. James Alexander.—A certificate of having passed any of the preliminary examinations approved by the General Medical Council will be accepted by the College of Surgeons. A list of such examinations was omitted from our Students' Number from want of space, but may be obtained at the office of the Council, Oxford-street.

J. Bruno.—Ross's Diseases of the Nervous System will give the information.

ANILINE DYES.

To the Editor of THE LANCET.

SIR,—In your issue of Sept. 20th (page 510) I read an article respecting "Aniline Colours," which I was astonished to find in a scientific journal like THE LANCET. I have been in the industry of aniline colours for the last fifteen years, and therefore consider myself entitled to speak from experience. Not a single case has been brought to my knowledge which really proved that disease was caused, or any person was in any way injured, by wearing garments dyed with aniline colours. It is true that physicians frequently declare, and newspapers report on such authorities, that red hat-linings, red stockings, or blue drawers have originated serious maladies; but never has such an assertion been proved by sound arguments. You will admit that if the aniline colour did really injure the skin or the health in any way the workmen employed in our industry ought to be the first to fall victims to its influence; for not only are their garments penetrated with the dye, but their faces, hands, and arms are covered with it. They inhale the dust, and swallow the dye. Well, among about 4000 workmen employed in our own works and in the aniline colour works of our neighbours (at Mannheim, Höchst, Offenbach, Biebrich, and Griesheim) the general state of health is at least as good as that of the workmen of any other industry. The premium for insuring our workpeople against sickness is not higher than the average; and those who have been employed at our works since 1869, when we began making aniline colours, are fresh and healthy. I may add that repeatedly experiments have been made by feeding animals with aniline colours, especially with the much-calumniated magenta, and that it has been proved to demonstration that no harm whatever resulted therefrom. This is what I have to state respecting the effect of the aniline colours themselves—that is to say, the aniline colours not fixed on textile fabrics. As to the means of fixation, everyone knows that for wool and silk in most cases no mordant at all is required, and that the mordants used for cotton dyeing generally are tannic acid or sulphate of alumina, which certainly do not injure the skin even in the free state. If you compare with these harmless fixing means the ancient colours—for instance, cochineal, which is always fixed with a tin salt—you will allow that garments dyed with aniline colours must be considered at least as healthy as those dyed in the ancient manner. I have never deemed it necessary to rebut the sensational accounts against the use of aniline colours as long as they appeared in common-place expressions of superficial newspaper reports; but I thought that if a journal of influence and authority like THE LANCET published an article like the one alluded to, its effect ought to be paralysed by an answer based upon the most incontestable facts.

I am, Sir, yours truly,

FRITZ GANS

Frankfurt, Sept. 26th, 1884. (of the firm of Leopold Cassella & Co.).

*** Instances of the production of a rash on the skin by wearing garments dyed with aniline colours have been observed by numerous physicians; the occurrence of such cases is beyond doubt. Mr. Gans's favourable experience may be perhaps due to the fact that our aniline contains arsenic acid, whilst his is pure. The matter, however, deserves investigation.—ED. L.

Insanity.—There is a sufficient account (for the examination mentioned) in Bristowe, last edition.

Surgical Instrument Enquirer.—The address mentioned is no doubt sufficient.

SCHOOL VENTILATION.

To the Editor of THE LANCET.

SIR,—This is a subject of growing interest, and I am glad to see it taken up by THE LANCET. I have gone into schoolrooms in which children were pent, and was glad enough to get back again into the open air. It is surely a good subject for investigation, as to how carbonic acid in different degrees affects the system; and Celsus mentions it. Not only is it important that schools which all the members of the rising generation are compelled to attend should be well ventilated, but that coal-mines should also be purified to a much greater extent than they are. In the leading article of the *Engineer Review* of Sept. 20th the writer, unable in consequence of the presence of CO_2 to light his lamp, went on working in the dark.—Yours truly,

Sept. 29th, 1884. CHAS. BROOM.

PIN-SWALLOWING.

To the Editor of THE LANCET.

SIR,—On Monday morning, about 8 o'clock, Mr. R—— came to me, stating that his boy, seven years of age, had just swallowed a pin. I recommended him to give the child plenty of bulky food, such as would tend to keep the bowels somewhat inactive, and carefully to avoid any aperient; also to search each motion for the pin. He followed this plan, and the pin, an inch and a quarter in length, was passed in a mass of faeces at 7 o'clock on the following Thursday morning.

I am, Sir, yours truly,

South Kensington, Sept. 13th, 1884. J. W.

"MODEL" BOOTS AND SHOES.

A GRATIFYING feature of the recent public awakening to the importance of hygiene generally is the increased attention which is being given to the question of the proper clothing of the feet. It is possible nowadays to meet with people who know how to protect their feet from cold and damp and rough roads without subjecting themselves to one of the most dreaded tortures of the Inquisition. In the case of children—if they are to be saved from corns and bunions, which form a life-long trouble to the majority of the members of all civilised communities—it is of especial moment that there should be some approach to harmony between the delicate anatomy of the chief organ of progression and the shape and size of the boot which is intended to cover it. These remarks have been suggested by the receipt from Messrs. Cook and Townshend, of Byrom-street, Liverpool, of a specimen of their "Child's Model Boot," which appears to fulfil the conditions necessary to ensure perfect ease and comfort in walking and running. The material is of the most pliable leather, and the shape conforms to the natural outline of the foot. By the way, we would express our preference, except in bad weather, for the shoe, as compared with the boot, for young people, as the former, by allowing easy play of the ankle-joint, permits of greater freedom of action, and favours a more lithesome motion and a more graceful carriage than can be secured with the use of the boot.

Mr. Reynolds (Castle Donington).—The proof arrived too late for corrections to be made.

"HOUSE DRAINS: A SUGGESTION."

To the Editor of THE LANCET.

SIR,—With deference allow me to question the opinion (if I understand it rightly) expressed in one of your leading articles last week *in re* house-drainage. You there deprecate ground-level ventilation, and advocate a single air-shaft immediately from the house drain. I venture to doubt whether this is sufficient or sound advice. I would insist, in the first place, on distinct isolation of the house drain from the sewer by one of the many traps (their name is legion—Buchan's or Hellyer's, &c.), in which the pressure of sewer gas on the water seal, at its distal end, is taken off by a ventilating shaft near it, and carried up above the roof of the house. The shaft might be black, and as much exposed to the sun as possible. In the second place, on the proximate side of the trap I would place a good-sized ground-level grating and charcoal tray, establishing a free current of air through the drain from this point to the top of the soil-pipe ventilating shaft; all this on the house side of the intercepting trap. This part of the drain, with adequate water service, if properly laid and gradationed, would be at all times comparatively pure, while the increased pressure of the atmosphere on the low-level grating would, with what builders call "the suck of the house," tend for good in establishing the circulation of fresh air through that section of the drain immediately connected with the house.

I am, Sir, your obedient servant,

H. D. FOWLER,

Bedford, Sept. 29th, 1884. Deputy Surgeon General (h.p.).

*** If our correspondent will look again at our article, he will see that we insist as strongly as it is possible to insist on the necessity of complete "disconnexion." This can only be secured by the use of a perfect disconnecting chamber. We are, however, quite as strong in our denunciation of low level ventilators, of whatsoever kind. It is all nonsense to suppose fresh air enters without the escape of impure air; the inlet pipe must come down from the roof level. Then if, as so often happens, the current be reversed, there is no harm done. As a matter of fact, if the grating over a ground-level "inlet" be tested, it will be found to be more frequently an *outlet*.—ED. L.

Dr. T. P. A. Stuart (Sydney).—The evidence before us is insufficient to enable us to express a definite opinion on the matter.

J. H. B.—We believe the test-papers are trustworthy.

G. A.—Yes.

"'HIGH' GAME."

To the Editor of THE LANCET.

SIR,—Amongst the annotations in your last issue was one on the wilful destruction of "high" game (which no doubt often unnecessarily takes place), suggesting a remedy for its correction and further preservation. Allow me to suggest another, which would, I think, be found more efficacious and easy of application—viz., to paint the tainted parts, usually, the neck and chest, with a strong solution of iodine in rectified spirit, which quickly permeates the soft tissue, or any part that may be torn. It must be very "high," indeed, if this fails at once and completely to remove all taint, the solution being so volatile that not an atom, or taste, or colour of the iodine remains after cooking. On several occasions game sent me from a distance has been pronounced hopeless by the cook; but after having been dressed as above and cooked has been considered delicious, those partaking of it having no idea of its having ever been thought "high." I have also given the direction to many others, who have invariably been satisfied with the results.

I am, Sir, yours truly,

Kingston-on-Thames, Sept. 30th, 1884. GEO. MUNDIE.

Mr. Whitworth should consult a respectable medical agent. The case should admit of easy adjustment, and our correspondent's services seem to have been such as to constitute an important element in any terms to be accepted.

PROLAPSED UTERUS.

To the Editor of THE LANCET.

SIR,—An account of the following case may be of interest to some of your readers.

On July 8th I was summoned to attend Mrs. P—— in her second confinement. On arrival I found the uterus completely prolapsed, the os and cervix being external to the vulva, and forming a tumour as large as a good-sized fist. I was told that during her first pregnancy her womb had come down, but had gone up again at the time of quickening, and that she had gone to the full time comfortably. Soon after leaving her bed, however, the uterus again descended, and remained so, although she expected that as soon as she "felt life" it would rise to its proper position, as it had done before. I may state that her first child is now five years of age, and that she has never had any treatment for her trouble. On further examination I found that the liquor amnii had escaped; the os was soft and dilatable, although as thick as two fingers, the head well down in the pelvis in the first position, and the pains regular, but with little expulsive power. I administered a few doses of ergot, and gently dilated the os with the fingers; but as the pains did not improve I proceeded to deliver with the forceps, introducing them carefully through the os, and into the cavity of the uterus. On applying traction I had a great deal of difficulty in preventing the uterus being expelled *in toto*; but by grasping the cervix with the left hand, or, rather, hooking my fingers over the edge of the os, and holding it back while I extracted the head with the right, I finally succeeded, with only a slight laceration of the cervix, in delivering the patient of a well-nourished male child at full time. Immediately after delivery I restored the uterus to its proper position, and kept the patient in bed for three weeks. As soon as the lochia had ceased I commenced Dr. R. Bell's treatment by medicated tampons. This has done a great deal of good by keeping the wound in position and reducing the size and weight of the cervix; but I fear it will not be sufficient to cure the tendency to prolapse in this case, as the ligaments must be severely strained by the long-continued displacement of the gravid uterus. I find that the tampon "loses its grip," as Dr. Bell says, about sixty hours after introduction, and slips down; so now I put in a small plug of cotton, and then introduce an ordinary circular boxwood pessary. This plan answers well, so that I have to see the patient and change the plug every fourth day only.

I think this case is remarkable, first on account of the comparatively slight amount of inconvenience caused by so severe a displacement, the patient having done all her own housework and washing during the pregnancy without having made any very great complaints of suffering; and, secondly, on account of the fact that although during the whole time the fœtal head must have occupied the cavity of the pelvis the woman did not miscarry, or even prematurely give birth to the infant; she, in fact, even states she is quite sure she was pregnant almost ten months, and from the appearance of the fœtus I should say that it is at least fully developed. In conclusion, I may remark that it was rather a novel experience for me to watch the progress of what is usually the first stage of labour after the head was fully expelled from the vulva.

I am, Sir, yours faithfully,

THOS. LEAHY, M.B.Dub.

Ashburton, Canterbury, New Zealand, Aug. 15th, 1884.

FERMENTATION AND INOCULATION.

To the Editor of THE LANCET.

SIR,—Brewer's wort, in that it is an organic liquid with saline constituents and able to support at the expense of some of these organic and saline constituents different types of low animal or vegetable life, may be roughly compared to human blood. When, as in the ordinary process of brewing, the wort is inoculated with yeast, that yeast feeds on certain organic and saline bodies in the wort, reproduces itself, runs a regular course, and in due time stops feeding and reproducing, and throws itself out of the wort. The liquid left behind, beer, is devoid of those bodies necessary to support the life and reproduction of yeast. If more yeast be put into the beer, no such action as previously described takes place; the beer remains practically unaltered. But if the beer be inoculated with one of the other ferments known to it—say, with the acetic acid germ or putrid germ of the brewer—that ferment will go on reproducing until it has exhausted all its particular food that it can find in the beer; it then becomes inert, and resigns possession of the liquid. If another dose of the same ferment be then introduced into the beer, it will not reproduce itself; but the beer remains practically unaltered.

Is it not probable that when the blood is inoculated—say as a protection against some disease (e.g., small-pox)—an analogous process goes on? Some sort of ferment which requires as its food the identical bodies in the blood which the small-pox germ also requires is introduced into the blood; it feeds on and reproduces itself on those bodies until it has exhausted them; it then throws itself clear of the blood, and no ferment requiring these same bodies in the blood for its support, can live in that blood until the last has replenished itself with them. This would, I suppose, occur in time with the blood of a living being, and then the person would be liable to again "take" if revaccinated, or if not vaccinated, to support the small-pox germ—i.e., to contract the disease.

I am, Sir, yours obediently,

Kilburn Brewery, N.W., Sept. 10th, 1884. H. G. ALDOUS.

MEDICAL EDUCATION IN JAPAN.

FROM a pamphlet entitled General Outlines of Education in Japan, which has been specially prepared for the International Health Exhibition, it appears that there is only one university, called Tôkiô Daigaku, which is under the control of the Department of Education. Attached to the University there is Yobimon (preparatory department) of the Tôkiô Daigaku, which consists of two schools—viz., the principal school, which is situated within the departments of law, science, and literature, and the branch school, which is situated within the department of medicine, and intended to prepare students on such subjects as are necessary for entering this department. The length of the course of study is four years in the branch school. In the department of medicine there is a course of instruction in medicine and pharmacy, and a special course is also provided. The object of the course in medicine is to train students for the degree of Igakushi, and the length of the course of study is five years; but the object of the special course in medicine is to train students as practical physicians, and the length of the course of study is four years. The course of study in pharmacy occupies three years. In the professional schools of medicine, which are situated in various localities, the length of the course of study is four years for physicians who pursue the regular course of study, and three years for those who desire to complete their study in a short time.

An Anxious Husband had better be guided by the advice of the medical attendant in the case.

A Constant Subscriber has not enclosed his card.

AN APPEAL TO PUBLIC VACCINATORS.

To the Editor of THE LANCET.

SIR,—I appear to have alarmed one of our district lady visitors, who has written to one of my guardians complaining of the manner in which I do my public vaccination—i.e., that I produce six vesicles. The instructions issued by the Local Government Board direct us to make "not less than four good-sized vesicles." Now, I am in the habit of making six small places, and am convinced that I cause no more local irritation than when I made four larger vesicles, as I used to do formerly. I have been public vaccinator here for five years, and during that time I have twice received the Government grant, and shall be much surprised if I fail to obtain it the next time the Government inspector pays me a visit. I shall esteem it a great favour if public vaccinators who read this will kindly send me a post-card stating the size and number of their vesicles, as I am requested to obtain this information; and if I get a good number of replies I will forward the result to THE LANCET.—I am, Sir, yours obediently,

Walthamstow, Oct. 1st, 1884. THOS. SCORERBY-JACKSON, M.D.

"A NEW TRACHEOTOMY TUBE."

To the Editor of THE LANCET.

SIR,—In your impression of the 27th ult. we notice, under the heading of "New Inventions," a description of a new tracheotomy tube, made in gum elastic at the suggestion of Mr. A. Rea Edwards, L.R.C.P. We beg to inform you that we have for some considerable time made them in this material, and have supplied them to many eminent members of the profession, who have used and approved highly of them. Upon reference to our illustrated catalogue, published in June, 1883, p. 157, fig. 430, will be found illustrated and described the elastic gum tubes made by us in four sizes, with or without an aperture in the tube. In consequence of the shield of our instruments being of one continuous web, it is impossible for them to become detached, and the shield, being soft, adapts itself with much comfort.

We are, Sir, your obedient servants,

New Bond-street, Oct. 1st, 1884. C. WRIGHT & Co.

"WANTED, A DIAGNOSIS."

To the Editor of THE LANCET.

SIR,—The letter under the above heading in your issue of Sept. 20th calls to my memory the following case of lead-poisoning.

A gentleman, aged fifty, presented an increasing muscular weakness of both hands, most marked in the right one. One of the many doctors he consulted thought it might have been occasioned by a long-standing habit of taking snuff which had been kept wrapped up in lead-foil instead of tin-foil, as usual in Italy. Perfect cure following the giving up of such a way of keeping snuff proved, *ex juvantibus*, the diagnosis to be correct.

I am, Sir, yours truly,

Verona, Sept. 24th, 1884. L. C.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—I shall be obliged by your allowing me to state that the inverted commas in the last paragraph but one in my communication of last week should be at the end of that paragraph, and not after the word "day," all the words being Sir Benjamin Brodie's, written some thirty or forty years ago.

I am, Sir, yours truly,

Savile-row, Oct. 1st, 1884. CHARLES HAWKINS.

ERRATUM.—In the report of the case of sunstroke at the Radcliffe Infirmary last week, the respirations were, by a typographical error, put at 136, instead of 36.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir E. Lechmere, London; Dr. Mahomed, London; Mr. Watson Cheyne, London; Mr. Orton, Stockport; Mr. Garrett, New York; Surgeon-Major Cookson, Totnes; Dr. Sizer, Brooklyn; Messrs. Cassella and Co., Frankfurt; Mr. Stretton, Kidderminster; Deputy Surgeon-General Fowler, Bedford; Mr. C. Broom; Mr. Makuna, London; Mr. Baker, Hockley; Dr. Alexander; Dr. Finlay, London; Mr. H. G. Manning, Salisbury; Dr. Strahan, Berry Wood; Dr. Fergus, Marlborough; Mr. Storey, Leicester; Mrs. Sullivan, Leicester; Dr. Law, Kensington; Mr. Jarman; Mr. Hall; Messrs. Horncastle and Co., London; Mr. Cornish, Manchester; Messrs. Austin and Sons, Clifton; Mr. Furley, London; Mr. Fowler, Hereford; Messrs. Bolton and Paul, Norwich; Mr. Maythorne, Biggleswade; Mr. Grant, Birmingham; Mr. Williamson, Farnham; Mr. Anderson; Mr. Haywood, Manchester; Messrs. Pembe and Co., London; Messrs. Parkins and Gotto, London; Mrs. Cherry, Plymouth; Dr. Adam, West Malling, Kent; Mr. Whitehouse, Rutford; Dr. N. Kerr, London; Mr. Hunt, Hull; Mr. Birchall, Liverpool; Dr. Davies, Bridgend; Dr. Tucker Wise, London; Mr. McPherson, Middlesbrough; Mr. E. F. Neve, Edinburgh; Dr. C. S. Taylor; Dr. Wiltshire; Dr. Leahy, Ashburton, New Zealand; Major-General Boileau; Mr. Thomas Bailey, Birmingham; Mr. H. K. Lewis, London; Dr. Habgood; Dr. Gowers, London; Dr. Beer, Vienna; Dr. Young, Hounslow; Dr. Craske, London; Mr. R. F. Campbell; Dr. Gordon Holmes; Dr. Mitchell, London; Dr. Norman Chevers, London; Mr. Nankivell, Butterworth, South Africa; Mr. H. A. Reeves, London; Mr. Clement Lucas, London; Mr. J. W. Taylor, Birmingham; Dr. Banham, Sheffield; Dr. Tyrrell Brooks, Oxford; Mr. Macnamara, London; Dr. Boothroyd, London; Mr. Gruenbaum, Stratford; Dr. Scoresby-Jackson, Walthamstow; Mr. Buckeridge; Mr. Bruno; Mr. Charles Hawkins, London; Mr. S. Simpson, Romsey; Dr. Leftwich; Mr. Woodman, London; Dr. Searey, Taskaloosa; Dr. Savage, London; Messrs. Mills and Co., Borough; Mr. Rutherford; Mr. Roberts; Mr. Fitzpatrick, Norwich; Mr. Crofts, Church Gresley; Mr. Kneebone, Bedford; Mr. Gillanders, Fortrose; Mr. Lyng, Saxmundham; Messrs. Trübner and Co., London; Mr. Phillips, London; Mr. Cantile; Dr. Saundby, Birmingham; Mr. Grote, Bristol; Dr. Ormsby, Dublin; Mr. Merlin, Sutton; Dr. Nugent; Insanity; A Disgusted One; Enquirens; Medicus, Dudley; Medicus, Bristol; Vendor; F.R.C.S., Leeds; L. C.; Moulting; J. P., Finsbury-park.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Phillips; Mr. Pace, Newcastle-on-Tyne; Mr. Scott, Manchester; Messrs. Lee and Martin, Birmingham; Mr. Popjoy; Messrs. Reynolds and Co., Leeds; Messrs. Hewlett and Co., London; Mr. Andrew, Southport; Mr. Gibson, Bromley; Mr. F. A. White, London; Messrs. Crosby and Co., Southwark; Mr. Hoare, Birmingham; Mr. Stevens, Brighton; Dr. Donovan; Mr. Pitt, Wellesbourne; Rev. E. R. Phelps, Bournemouth; Miss Meyer, Holloway; Mr. Vitting, Enfield; Mr. Jeccles, Derby; Messrs. Keith and Co., Edinburgh; Dr. Hawkes, Harrow-road; Mr. Bindon, Halifax; Mr. Gearier, Warrington; Mr. Groom, Hornsea; Mr. Crasweller; Mr. Prowse, Bynabrook; Mr. McClennon, Glasgow; Medicus, Southport; Medicus, Rochdale; A.B., Canterbury; X. A.; L.R.C.P., London; Cymro; Sister Mary; Florence, Cheltenham; J. D., West Leigh; M.R.C.S., Salisbury; Micrococcus; M.D., Wolverhampton; W. B. N., Hull; Quixote; Box, Bradford; A. B., Bewdley; X. B.; X. A. R.; Medical, Dundee; Medicus, Chelsea; M.B., Birmingham; Medicus, Cromer; M.R.C.S.; Office L.; M., Catford; M.D., Hackney; Theta; W. T. S.; Statim; House-Surgeon, J. A.; Newark-on-Trent; Kappa; Neurosis, Isle of Wight; H.

Sydenham and Penge Gazette, Calcutta Englishman, Family Churchman, Liverpool Courier, Kimberley Daily Independent, Musical Opinion, Kimberley Diamond Fields Advertiser, Practical Confectioner, &c., received.

Medical Diary for the ensuing Week.

Monday, October 6.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

Tuesday, October 7.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Wednesday, October 8.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.—Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
HUNTERIAN SOCIETY.—7.30 P.M. Meeting of Council. 8 P.M. Dr. Robert Fowler: Presidential Address.—Mr. Walter Fowler: Specimens of the Bacillus Anthracis.—Dr. Pitt: Anthrax (with specimens).
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Potter and others. Mr. Hopkins Walters: Post-partum Avulsion of the Uterus, Right Ovary, and Fallopian Tube; recovery.—Dr. Horrocks: Rupture of the Uterus and Vagina.—Dr Potter: Retained Product of Conception.

Thursday, October 9.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

Friday, October 10.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Hadden: Certain Nerve Symptoms in Rheumatic Affections.—Mr. Croft: Preputial Calculi.—Dr. Crocker: Urticaria Pigmentosa or Xanthelasmoidea.—Dr. Finlay: Perforation of the Vermiform Appendix.—Mr. Golding Bird: Dislocation of the Patella.

Saturday, October 11.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Sons' Railway Bookstalls throughout the United Kingdom, and all their Advertising Agents.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.